

U.S. Department of Energy



National Energy Technology Laboratory

November 17, 2000

Request For Proposal (RFP) No. DE-RP26-01NT40774 for "Demonstration of Innovative, Improved Field Methods for In Situ Delineation and Assessment of Contamination Located in Difficult Subsurface conditions at DOE Sites."

Prospective Offerors:

The purpose of this Executive Summary Letter is to highlight salient elements of the RFP. This letter is <u>not</u> an integral part of the RFP which is a self-contained document. In the event of any conflict between the contents of this Executive Summary Letter and that of the RFP, the RFP language will prevail.

The National Energy Technology Laboratory (NETL) is soliciting for offers to "complete a study with twofold objectives that include development and demonstration of a technology system that can: 1) access contamination (carbon tetrachloride, trichloroethylene, tetrachloroethylene, and others) in difficult subsurface conditions, and 2) use in situ field measurement techniques to determine both contaminant spatial distribution and quantity in concentration levels. The Government requirements are detailed in the Statement of Work contained in Section J, Attachment A.

Each offer will be objectively reviewed on its own merit against the evaluation criteria stated in the RFP using technical, scientific and/or peer reviewers, some of whom may be non-Governmental personnel. Should an offeror object to review of their proposals by individuals other than Government employees it shall so state in Volume I of its proposal. Offerors are, however, cautioned that the DOE may be unable to give full consideration to proposals which indicate that only Government evaluation is authorized.

Individuals, corporations, nonprofit organizations, small and small disadvantaged businesses, educational institutions, and state or local governments or other entities who wish to have a proposal evaluated should respond to the requirements of this RFP. Federal agencies and agents (i.e., Management and Operating (M&O) contractors and/or National Laboratories) are prohibited from submitting proposals under this solicitation.

The DOE anticipates award of a multiple number (2 or more) of Cost Plus Fixed Fee (CPFF); but the DOE reserves the right to award the contract type and number deemed in its best interest.

It is anticipated that this effort would be completed within an estimated period of performance of between 24 and 36 months. However, this does not preclude consideration of longer or shorter projects.

The Government does not anticipate providing any facilities or property for accomplishing this effort. Offerors are encouraged to propose utilization of existing facilities and to make allowances for providing all necessary personnel, facilities, equipment and materials to complete proposed projects.

Proposals must be submitted in accordance with the requirements of the RFP (See Part IV, Section L). Offerors are also advised to give particular attention to the evaluation criteria identified in Part V, Section M. Each of the required proposal parts should be bound separately and clearly labeled. The proposals must be received by the Contract Specialist not later than 4:00 p.m. local prevailing time on December 8, 2000, at the address below:

U.S. Department of Energy National Energy Technology Laboratory ATTN: James W. Huemmrich P. O. Box 10940 Mail Stop 921-107 Pittsburgh, PA 15236-0940

OR FOR HAND DELIVERED

626 Cochrans Mill Road Building 921, Room 164 Pittsburgh, PA 15236-0940

Proposals must authorize a period for acceptance by the Government of not less than one hundred eighty (180) calendar days from the date specified for receipt of proposals. Further, you are cautioned that late proposals, modifications, and withdrawals will be treated in accordance with the article in Section L entitled "Instructions to Offerors - Competitive Acquisition."

All requests for explanation or interpretation of any part of the RFP shall be submitted in writing to the Contract Specialist at the aforenoted address. Questions must be received by the Contract Specialist via E-mail or in writing not later than 4:00 p.m. local prevailing time on December 1, 2000. The Government reserves the right not to respond to questions submitted after this date, nor to respond to questions submitted by telephone or in person at any time.

All amendments will be posted on the NETL Homepage at:

http://www.NETL.doe.gov/business/solicit/

therefore, offerors are encouraged to periodically check the NETL Homepage to ascertain the status of any amendments as hard copies will not be distributed.

For your information, it is recommended that all prospective offerors download a copy of the DOE "Lobbying Brochure" (http://www.pr.doe.gov/lobbying.html) which provides a summary of the statutory and regulatory restrictions regarding lobbying activities for Federal contractors and recipients.

Please note that an automated document writing system has been used to prepare this document. Each provision in the data base has been assigned a number. Not all of the provisions in the data base have been used in this document; therefore, the numbering may not be continuous.

All communications concerning this RFP should cite the RFP number and be directed in writing to the attention of the Contract Specialist via mail at the letterhead address, via Fax at (412) 386-6137, or via E-mail at huemmric@netl.doe.gov.

Sincerely,

Raymond D. Johnson Contracting Officer Acquisition and Assistance Division

Enclosures:

- 1) Program Background Information
- 2) Request for Proposals (RFP)

Enclosure 1

PROGRAM BACKGROUND

General Background

After years of designing, manufacturing, and testing nuclear weapons, the DOE is faced with the challenge of cleaning up the hazardous waste left behind. More than 5,700 known DOE groundwater plumes have contaminated more than 475 billion gallons of water. DOE landfills contain more than 3 million cubic meters of buried waste contaminating the surrounding environment. At DOE sites throughout the country, soil, groundwater, and landfills containing or contaminated with hazardous and radioactive contaminants have special cleanup needs.

This technology demonstration is focused on Dense Nonaqueous Phase Liquid (DNAPL) contamination (carbon tetrachloride, trichloroethylene, tetrachloroethylene, and others) in difficult subsurface conditions, and improved, more cost-effective technologies that operate in these difficult conditions to assess contamination. DOE Nuclear Complex Sites such as Hanford, Paducah, Portsmouth, Pantex, Savannah River, Oak Ridge, and others, all have DNAPL plumes that contaminate soil and groundwater in subsurface conditions that are difficult to access and/or hamper assessment of contamination. These conditions include: soils that are difficult to penetrate; complex sediment facies that is highly heterogeneous and/or contains complex structures; contamination that underlies man-made structures such as buildings, pipes, and tanks; excessively deep contamination (greater than 45 meters); and others. In these difficult conditions, the need is to improve detection of contamination, to improve measuring concentration levels in the field, and to improve mapping plumes (spatial distribution of contaminants) and time-variant changes. The goal of this project is to design, develop, and demonstrate a novel and innovative technology system to: (1) access the contamination in difficult subsurface conditions, and (2) perform in situ characterization of contamination to determine spatial distribution and quantity in concentration levels. Novel and breakthrough field technologies that do not duplicate existing methods are desired.

The technology will be selected on the basis of a matrix of integrated functions, issues, and performance requirements. They include: (1) focus of DOE Complex end user needs (DOE site end user's likely commitment to technology based on performance, fulfilling site needs, and others; novel and innovative nature of technology (not redundant of existing technologies)); and prevalence of the need for the technology within the DOE Complex; (2) technical and engineering issues (technical viability; engineering feasibility; advanced level of technology maturity; technical performance over baseline; effect of use of technology, e.g. secondary waste reduction); (3) benefits of the technology (risk reduction compared to baseline; cost reduction compared to baseline; return of investment; and leveraging of funds and resources); and (4) acceptance and compliance issues (stakeholder acceptance, and regulator acceptance and ability for technology to meet regulatory compliance).

As stated above, a matrix of functions, issues, and performance requirements will be used to select the technologies for this demonstration. A key requirement of the selected technology will be that it has attained the Engineering Development Stage. This requirement is necessary to expeditiously complete final design and fabrication of the technology system, then conduct pilot scale testing and full scale demonstration of the system. The DOE Environmental Management Technology Decision Process defines numerous technology maturation levels or stages, of which the Engineering Development Stage is one. Requirements for reaching the Engineering Development Stage have been defined by numerous criteria that address the following: technology end user need; technical merit; cost; safety, health, and environmental protection, and risk; stakeholder, regulator, and tribal issues; and commercial viability. Several technical merit or cost criteria are considered crucial for this project attaining status of Engineering Development Stage. These are listed below:

- 1. Evidence that technical feasibility has been demonstrated and that the technology met performance requirements. This evidence included summaries of proof-of-principal and/or laboratory-scale experimentation. Clear and direct scale-up capability for future prototype and full-scale demonstrations and implementations were provided.
- 2. Proposed methods or approach for technology demonstration and implementation are scientifically based. The scientific basis for moving the technology from proof-of-principal and laboratory-scale experimentation to prototyping was provided.
- 3. Proof of the design of the technology application was provided. Evidence was provided that the design of the technology for application was completed. Evidence may have included full-scale laboratory testing results, preliminary field testing results, technical specification, and infrastructure development plans.
- 4. A clear cost benefit associated with continued investment in the research and development of the technology was clearly demonstrated. Evidence was provided of cost savings/cost avoidance and return on investment through use of the technology.

Although the technology will be required to operate under broad subsurface conditions encountered at DOE sites in both the vadose zone and saturated zone, it is imperative that the selected technologies be developed and show successful demonstration at the selected test areas at the Hanford Site.

Hanford Demonstration Site

At the Hanford 200 West Area, carbon tetrachloride (CCl₄) is present in the vadose zone and groundwater (see Figure 1) (see References). The vadose zone and unconfined aquifer consist of a thick accumulation of unconsolidated to semi-indurated sediments composed of silts, sands, and gravels. The water table is located at about 65 meters, and groundwater flows within a multi-aquifer system. Between 1955-1973, CCl₄ was discharged to the soil column in this area in aqueous mixtures and in nonaqueous phase (DNAPL). The plume of dissolved CCl₄ that resulted from these discharges,

extends over 11 square kilometers in the unconfined aquifer under 200 West Area. The highest concentrations of CCl₄ in the 200 West Area groundwater are approximately 8,000 micrograms per liter. Dissolved CCl₄ has been observed deep within the unconfined aquifer (greater than 10 meters below water table) and within the uppermost confined aquifer. Difficult conditions that hamper assessment of the plume in the 200 West Area include the complex sediment facies that control fluid transport, gravel lenses, well-cemented caliche layers, man-made obstructions (buildings, tanks, others), and extensive and deep contamination. Technologies that allow access to this wide variety of sediments for both characterization and remediation are required. In addition, costs to characterize and monitor this deep and large plume with conventional technologies such as drilling and sampling are excessive, and significant cost-savings could be realized with improved methods. In situ monitoring would reduce the labor-intensive process of sampling, handling, and shipping samples for analyses. These data could also provide highly accurate isopleths of contaminant concentrations to aid fate and transport modeling and construction of remediation systems.

The goal of this project is to design, develop, and demonstrate a novel and innovative technology system to: (1) access the contamination in difficult subsurface conditions, and (2) perform in situ characterization of contamination to determine spatial distribution and quantity in concentration levels. Qualifying technologies can be a combination of technologies integrated together, and should be capable of meeting the identified field performance requirements. Expeditious field demonstrations at DOE sites that include Hanford are desired for qualifying technologies, and a full scale demonstration at DOE Hanford is anticipated. To that end, the following are anticipated performance requirements that would be required for a full-scale demonstration at a Hanford 200 West demonstration site to assess CCl₄ contamination in difficult subsurface conditions:

- Ability to access and determine carbon tetrachloride (CCl₄) concentration levels in vadose zone (soil vapor, soil moisture, sorbed to solids, and residual) and groundwater in difficult subsurface conditions that include complex sediment facies, gravel, caliche, beneath man-made obstructions, and excessive depths (greater than 85 meters). Must be capable of measuring CCl₄ levels in groundwater ranging from maximum of 10,000 micrograms per liter CCl₄ to minimum of 5 micrograms per liter CCl₄. CCl₄ may occur in both aqueous phase and free phase (DNAPL).
- Capable of depth profile measurements ranging from the surface to depths of approximately 110 meters and capable of making measurements at multiple depths at discrete points on scale of several centimeters.
- Ability to provide real-time measurements and data results. A system with automatic measurements that is capable of remote downloading is preferred. Technologies that take advantage of existing extraction, injection, or monitoring wells, would be permitted.

- Ability to use measured concentration levels to produce spatial plots with the location and concentration of CCl₄ contamination both above and below the water table. Ability to report results in field coordinates and through use of visualization tools to plot isopleths of concentrations. Ability to map discrete lenses and pools of variable concentrations within the entirety of the plume. Methodology may involve integration of techniques, therefore integrated results are desired within 48 hours.
- Ability to measure time-variant changes of the combined plume configuration (spatial distribution) and the concentration levels, and provide results within 48 hours.
- Non-invasive or minimally invasive, eliminate or reduce Investigative Derived Waste (IDW), and prevent cross-contamination. For example, use of sensors in existing wells, use of geophysical or other remote sensing technologies, and methodologies involving cross-hole tests reduce or eliminate IDW. Reasonable measures should be made to ensure waste minimization.
- Robust in order to operate in remote, harsh field environment where access is limited and utilities are not readily available.
- Ability to provide technology performance and results which are verifiable with independent field data, controlled tests, or other acceptable means.
- Ability to minimize operational time including rapid site mobilization, completion of operations, and demobilization. The technology should operate reliably, with minimal scheduled or unscheduled outages for maintenance or repair.
- Demonstrated cost savings compared to baseline drilling and sampling methods, and able to operate within acceptable demonstration site Environmental, Safety, and Health requirements, and regulatory and stakeholders requirements.

REFERENCES¹

1. DOE, 1997. Linking Legacies. DOE/EM-0319. Washington, D.C. 230 pp.

Available from:

The Environmental Management Information Center Office of Strategic Planning and Analysis U.S. Department of Energy 1000 Independence Avenue, SW Washington, DC 20585 (202) 586-9280 and (800) 736-3282

2. Swanson, L.C., Rohay, V.J., and Faurote, J.M. (CH2M Hill Hanford, Inc.), 1999, Hydrogeologic Conceptual Model for the Carbon Tetrachloride and Uranium/Technetium Plumes in the 200 West Area: 1994 through 1999 Update, Prepared for the U.S. Dept. Of Energy, Richland Operations Office, Submitted by Bechtel Hanford, Inc., BHI-01311, Rev. 0, 133 pp. **Select BHI-1311 at the following website:**

http://www.bhi-erc.com/library/bhi.htm

Also available from: U.S. Department of Commerce National Technical Information Service 5285 Port Royal Road Springfield, VA 22161 (703) 487-4650

- 3. Rohay, V.J. (CH2M Hill Hanford, Inc.), 2000, Performance Evaluation Report for Soil Vapor Extraction Operations at the Carbon Tetrachloride Site, February 1992-September 1999, Prepared for the U.S. Dept. Of Energy, Richland Operations Office, Submitted by Bechtel Hanford, Inc., BHI-00720, Rev. 4, 287 pp. Select BHI-00720 at the following website: http://www.bhi-erc.com/library/bhi.htm
- 4. DOE-Hanford homepage (http://www.hanford.gov) and Hanford Site Technology Coordination Group (STCG) Website for technology need statements (http://www.pnl.gov/stcg)
- 5. Hanford STCG Need Number RL-SS03, "Improved, Real-time, In Situ Detection of Carbon Tetrachloride in Groundwater," (http://www.pnl.gov/stcg/fv00needs/technology/ss/rl ss03.stm)
- 6. Hanford STCG Need Number RL-SS25, "Improved, Cost-effective Methods for Subsurface Access to Support Characterization and Remediation," (http://www.pnl.gov/stcg/fy00needs/technology/ss/rl_ss25.stm)
- 7. Hanford Site Technology Coordination (STCG) Website for technology need statements (http://www.pnl.gov/stcg).
- 8. DOE-Environmental Management homepage link to all DOE sites and their technology need statements.

(http://www.em.doe.gov/info/scitech.html).

9. Hanford Site Visit Documentation, NT40774, September 12, 2000, posted on NETL business page.

(http://www.netl.doe.gov/business/solicit/).

¹ Publication charges may apply and are the responsibility of the requestor.

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SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 <u>ITEMS BEING ACQUIRED (SOW W/DECISION POINT - PHASES)</u> (SEP 2000-R)

The Contractor shall furnish required personnel, facilities, equipment, material, supplies, and services (except as may be expressly set forth in this contract as furnished by the Government) and otherwise do all things necessary for, or incident to, the performance of the following items of work:

B.1.1 PHASE I:

B.1.1.1 ITEMS BEING ACQUIRED:

- Item 1 Research entitled "Demonstration of Innovative, Improved Field Methods for In Situ Delineation and Assessment of Contamination Located in Difficult Subsurface Conditions at DOE Sites," in accordance with Part III, Section J, Attachment A, Statement of Work.
- Item 2 Reports as prescribed in accordance with Part III, Section J,
 Attachment B, "Reporting Requirements Checklist"
 associated with Item 1 above.

 (Not separately priced included in price of Item 1)

B.1.1.2. ESTIMATED COST AND FIXED FEE (PHASE 1):

The Total Estimated Cost Plus Fixed Fee for the work to be accomplished under Items 1 and 2 (Phase I) of this contract is: (Note: Item 2 is not separately priced.)

Total Estimated Cost	\$[]
Fixed Fee	\$[]
Total Estimated Cost Plus Fixed Fee.	\$[]

NOTICE: NO WORK UNDER THIS CONTRACT SHALL BE AUTHORIZED BEYOND THE PHASE I WITHOUT THE SPECIFIC WRITTEN DIRECTION OF THE CONTRACTING OFFICER

B.1.2. PHASE II:

B.1.2.1. ITEMS BEING ACQUIRED:

- Item 3 Research entitled "Demonstration of Innovative, Improved Field Methods for In Situ Delineation and Assessment of Contamination Located in Difficult Subsurface Conditions at DOE Sites," in accordance with Part III, Section J, Attachment A, Statement of Work.
- Item 4 Reports as prescribed in accordance with Part III, Section J, Attachment B, "Reporting Requirements Checklist" associated with Item 3 above.

(Not separately priced - included in price of Item 3)

B.1.2.2. ESTIMATED COST AND FIXED FEE (PHASE II):

The Total Estimated Cost Plus Fixed Fee for the work to be accomplished under Items 3 and 4 (Phase II) of this contract is: (Note: Item 4 is not separately priced.)

Total Estimated Cost	. \$[]
Fixed Fee	. \$[_]
Total Estimated Cost Plus Fixed Fee	. \$[1

B.1.3. TOTAL CONTRACT [PHASE I PLUS PHASE II (if authorized)]

B.1.3.1. ESTIMATED COST AND FIXED FEE:

The Total Estimated Cost Plus Fixed Fee for Items 1, 2, 3, and 4 is:

Total Estimated Cost	\$[]
Fixed Fee	\$[
Total Estimated Cost Plus Fixed Fee		7

B.2 <u>LIMITATION OF FUNDS -- COST PLUS FIXED FEE (JUNE 1998)</u>

Pursuant to FAR 52.132-22, "Limitation of Funds," total funds in the amount of \$[] are obligated herewith and made available for payment of allowable costs and fixed fee to be incurred from the effective date of this contract through the period estimated to end [].

B.3 <u>DECISION POINT (PHASED SOW) (NOV 1998)</u>

There is determined to be a decision point falling at the conclusion of Phase I of the contract. If at the time of the decision point, the Government determines that it is advantageous to the Government to enter into Phase II, the Contracting Officer will authorize the Contractor to proceed. If it is determined that it would not be advantageous to the Government to proceed into Phase II, the Contracting Officer shall notify the contractor of such and cause modification to the contract to consider the contract to be completed as of completion of Phase I activities.

	SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT
	<u>PAGE</u>
C.1	STATEMENT OF WORK (NOV 1997)
C.2	ITEM DESCRIPTION
C.3	REPORTS (MAY 1998)
C.4	RESULTS OF SCIENTIFIC AND TECHNICAL WORK SUPPORTED BY DOE

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C.1 STATEMENT OF WORK (NOV 1997)

The Statement of Work is located in Part III -- Section J, Attachment A to this contract.

C.2 ITEM DESCRIPTION

C.2.1 PHASE I:

- Item 1 ---- Research entitled "Demonstration of Innovative, Improved Field Methods for In Situ Delineation and Assessment of contamination Located in Difficult Surface Conditions at DOE Sites," (Phase I) in accordance with Part III, Section J, Attachment A, Statement of Work.
- Item 2 ---- Reports as prescribed in accordance with Part III, Section J, Attachment B, "Reporting Requirements Checklist" associated with Item 1 above.

 (Not separately priced --- included in price of Item 1 above.)

C.2.2 PHASE II:

- Item 3 ---- Research entitled "Demonstration of Innovative, Improved Field Methods for In Situ Delineation and Assessment of contamination Located in Difficult Surface Conditions at DOE Sites," (Phase II) in accordance with Part III, Section J, Attachment A, Statement of Work.
- Item 4 ---- Reports as prescribed in accordance with Part III, Section J, Attachment B, "Reporting Requirements Checklist" associated with Item 3 above.

 (Not separately priced --- included in price of Item 3 above.)

C.3 REPORTS (MAY 1998)

Reports shall be prepared and submitted in accordance with the reporting requirements described in Part III -- Section J, Attachment B.

C.4 RESULTS OF SCIENTIFIC AND TECHNICAL WORK SUPPORTED BY DOE

The Contractor shall provide such items as scientific and technical reports, journal articles reprints, conference papers and proceedings, theses, translations, etc. which communicate the results of scientific and technical work supported by DOE, whether or not specifically identified in the contract. These results shall be submitted in accordance with the instructions in part III, Section J, Attachment B, Reporting Requirements.

SECTION D - PACKAGING AND MARKING

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D.2	MARKING (JAN 1999)		9

SECTION D - PACKAGING AND MARKING

D.1 PACKAGING (FEB 1999)

Preservation, packaging, and packing for shipment or mailing of all work delivered hereunder shall be in accordance with good commercial practice and adequate to insure acceptance by common carrier and safe transportation at the most economical rate(s).

Except for those reports required by the Reporting Requirements Checklist of the contract, which are coded by A (As required) where the urgency of receipt of the report by the Government necessitates the use of the most expeditious method of delivery, reports deliverable under this contract shall be mailed by other than first-class mail, unless the urgency of the deliverable sufficiently justifies the use of first-class mail. The Contractor shall not utilize certified or registered mail or private parcel delivery service for the distribution of reports under this contract without the advance approval of the Contracting Officer except for those reports coded A.

D.2 MARKING (JAN 1999)

Each package, report or other deliverable shall be accompanied by a letter or other document which:

- (1) Identifies the contract by number under which the item is being delivered.
- (2) Identifies the deliverable Item Number or Report Requirement which requires the delivered item(s).
- (3) Indicates whether the Contractor considers the delivered item to be a partial or full satisfaction of the requirement.

For any package, report, or other deliverable being delivered to a party other than the Contracting Officer, a copy of the document shall be simultaneously provided to the office administering the contract, as identified in Section G of the contract, or if none, to the Contracting Officer.

SECTION E - INSPECTION AND ACCEPTANCE

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E.1	INSPECTION (NOV 1997)
E.2	ACCEPTANCE (MAR 1999)11
E.3	52.246-9 INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM) (APR 1984)

SECTION E - INSPECTION AND ACCEPTANCE

E.1 INSPECTION (NOV 1997)

Inspection of all items under this contract shall be accomplished by the DOE Contracting Officer's Representative (COR), or any other duly authorized Government representative.

E.2 ACCEPTANCE (MAR 1999)

Final acceptance of all work and effort under this contract (including "Reporting Requirements," if any) shall be accomplished by the Contracting Officer.

E.3 <u>52.246-9 INSPECTION OF RESEARCH AND DEVELOPMENT (SHORT FORM).</u> (APR 1984)

The Government has the right to inspect and evaluate the work performed or being performed under the contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

SECTION F - DELIVERIES OR PERFORMANCE

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F.2	PRINCIPAL PLACE OF PERFORMANCE (FEB 1998)
F.3	52.242-15 STOP-WORK ORDER. (AUG 1989) ALTERNATE I (APR 1984)

SECTION F - DELIVERIES OR PERFORMANCE

F.1 PERIOD OF PERFORMANCE (NOV 1997-R)

F.1.1 PHASE I:

The work to be performed under the Phase I (Reference Part I, Section, B) shall commence on the effective date of the contract and shall continue for [TBD] months. This includes time for submission of the draft final report, review of the draft by DOE, and submission of the approved final report by the contractor.

NOTICE: The Contractor <u>shall not</u> proceed beyond Phase I without the specific written direction of the Contracting Officer (Reference Article B.3).

F.1.2 PHASE II:

The work to be performed under the Phase II (Reference Part I, Section, B) shall commence upon the date specified in the specific written direction of the Contracting Officer (if provided) and shall continue for [TBD] months. This includes time for submission of the draft final report, review of the draft by DOE, and submission of the approved final report by the contractor.

F.2 PRINCIPAL PLACE OF PERFORMANCE (FEB 1998)

The principal place of performance under this contract shall be at the Contractor's facility located in:



F.3 <u>52.242-15 STOP-WORK ORDER. (AUG 1989) -- ALTERNATE I (APR 1984)</u>

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a

stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either -

- (1) Cancel the stop-work order; or
- (2) Terminate the work covered by the order as provided in the Default, or Termination clause of this contract.
- (b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected, and the contract shall be modified, in writing, accordingly, if -
 - (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
 - (2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

SECTION G - CONTRACT ADMINISTRATION DATA

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SECTION G - CONTRACT ADMINISTRATION DATA

G.1 CORRESPONDENCE PROCEDURES (FEB 2000)

To promote timely and effective administration, correspondence (except for invoices and reports) submitted under this contract shall be subject to the following procedures:

(a) <u>Technical Correspondence</u>

Technical correspondence (as used herein, this term excludes technical correspondence where patent or technical data issues are involved and correspondence which proposes or otherwise involves waivers, deviations, or modifications to the requirements, terms, or conditions, of this contract) shall be addressed to the DOE Contracting Officer's Representative, with an information copy of the correspondence to the DOE Contract Specialist.

(b) <u>Property Correspondence</u>

Property correspondence (as used herein, this term includes correspondence which addresses matters which relate to property issues which come under the contract's Government property provisions) shall be addressed to the DOE Property Administrator, with information copies of the correspondence to the DOE Contracting Officer's Representative and the DOE Contract Specialist.

(c) <u>Indirect Rate Correspondence</u>

All correspondence relating to the establishment, revision, and negotiation of billing and final indirect cost rates shall be addressed to the Contracting Officer for Indirect Cost Rate Management, with information copies of the correspondence to the DOE Contract Specialist.

(d) <u>Correspondence on Patent or Technical Data Issues</u>

Correspondence concerning patent or technical data issues shall be addressed to the Office of Intellectual Property Law, U.S. Department of Energy, Chicago Operations Office, 9800 South Cass Avenue, Building 201, Argonne, IL 60439.

Information copies of correspondence being sent to the Intellectual Property Law Division shall also be sent to the NETL Patent Attorney, the DOE Contract Specialist, and the Contracting Officer's Representative.

(e) Other Correspondence

All other correspondence shall be addressed to the DOE Contract Specialist with information copies of the correspondence to the DOE Contracting Officer's Representative.

(f) Subject Line(s)

All correspondence shall contain a subject line commencing with the contract number, i.e., DE-AC26-01NT[#####], and identifying the specific contract action requested.

G.2 SUBMISSION OF VOUCHERS/INVOICES (APR 2000)

(a) Voucher Form (SF 1034)

In requesting reimbursement, contractors shall use Standard Form 1034 (Public Voucher for Purchases and Services Other Than Personal), and F4220.50 (Statement of Cost). Electronic versions of the SF1034 and the F4220.50 can be found on the NETL website at http://www.netl.doe.gov/business/forms/forms.html. The Statement of Cost shall be supported by the information contained in Paragraph (c) of this clause. Acceptable substitutes for the forms (which provide the same necessary information) may be used.

In accordance with FAR 52.232-25, "Prompt Payment," all invoices shall include the following information:

- (1) Name and address of contractor/vendor
- (2) Invoice date
- (3) Contract number or other authorization for delivery of property or service
- (4) Description, price and quantity of property and services actually delivered or rendered
- (5) Shipping and payment terms
- (6) Name (where practicable), title, phone number and complete mailing address of responsible official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment)
- (7) Name (where practicable), title, phone number and complete mailing address of the person to be notified in the event of a defective invoice.
- (8) Other substantiating documentation or information as required by the contract.

(b) Statement of Cost

The SF 1034 shall be completed so as to make due allowances for the Contractor's cost accounting system. The costs claimed shall be only those recorded costs (including cost sharing) which are authorized for billing by the payment provisions of this contract. If this is a cost-plus-fixed-fee contract, the amount claimed for the fixed fee should be based on a percentage of completion of the work. If this is a cost sharing contract, the "Government Share" must agree with the amount billed on the SF 1034. Any cost sharing or in-kind contributions incurred by the Contractor and/or third party during the billing period must be included in the invoice and adequately supported. Indirect rates claimed shall be billed in accordance with the "Allowable Cost and Payment Clause." The Certification (block 11) must be signed by a responsible official of the Contractor.

(c) Supporting Documentation

Direct costs (e.g., labor, equipment, travel, supplies, etc.) claimed for reimbursement on the Statement of Cost must be adequately supported. The level of detail provided must clearly indicate where the funds were expended. For example, support for labor costs must include the labor category (e.g., program manager, senior engineer, technician, etc.) the hourly rate, and the labor cost per category; equipment costs must be supported by a list of the equipment purchased, along with the item's cost; supporting data for travel must include the destination of the trip, number and labor category of travelers, transportation costs, per diem costs, and purpose of the trip; and supplies should be categorized by the nature of the items (e.g., office, lab, computer, etc.) and the dollar amount per category.

Indirect rates used for billings must be clearly indicated, as well as their basis of application. When the cognizant Administrative Contracting Officer (ACO) or auditor approves a change in the billing rates, include a copy of the approval.

(d) Submission of Voucher

Submit one copy of the original voucher including the certified Statement of Cost and Supporting Documentation to the following payment office:

U. S. Department of EnergyOak Ridge Financial Services CenterP. O. Box 4787Oak Ridge, TN 37831

In addition, submit two copies of the voucher including the certified Statement of Cost and Supporting Documentation to the following address:

U. S. Department of Energy National Energy Technology Laboratory ATTN: Accounts Payable, MS 921-232 P.O. Box 10940 Pittsburgh, PA 15236-0940

(e) <u>Billing Period</u>

Vouchers shall be submitted no more frequently than monthly (unless prior written consent of the Contracting Officer for more frequent billing is obtained). The period of performance covered by vouchers should be the same as covered by any required monthly technical progress reports and/or monthly cost reports.

(f) Payment Method

In accordance with Mandatory Information for Electronic Funds Transfer Payment, payment under this contract will be made utilizing the Automated Clearing House (ACH) network. The payment system is specifically referred to as "Vendor Express."

(g) <u>Defective Invoices</u>

Invoices that are determined to be defective, and therefore not suitable for payment, shall be returned to the Contractor as soon as practicable, specifying the reason(s) why the invoice is not proper.

(h) Status of Payments

The Oak Ridge Financial Service Center (ORFSC) has a system via Internet, in which contractors can request information about payments by invoice, by contract number, and/or by paid date. The system is called Vendor Inquiry Payment Electronic Reporting System (VIPERS) and is available to contractors at the following website: http://finweb.oro.doe/vipers.htm. Contractors must have a federal tax identification number (TIN) and then obtain a personal identification number (PIN) to access the system.

G.3 NOTICE OF INVOICE PROCESSING BY SUPPORT CONTRACTOR (DEC 1999)

A support service contractor performs the function of processing of all invoices submitted to the National Energy Technology Laboratory, against its awards. Therefore, this contractor has access to your business confidential cost/rate information. A special provision in this contractor's award requires the confidential treatment by all contractor employees of any and all business confidential information of other contractors and financial assistance recipients to which they have access.

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 CONSECUTIVE NUMBERING (JAN 1999)

Due to automated procedures employed in formulating this document, clauses and provisions contained within it may not always be consecutively numbered.

H.2 TECHNICAL DIRECTION (JUNE 1998)

- (a) Performance of the work under this contract shall be subject to the technical direction of the Contracting Officer's Representative (COR). The term "technical direction" is defined to include, without limitation:
 - (1) Directions to the Contractor which redirect the contract effort, shift work emphasis between work areas or tasks, required pursuit of certain lines of inquiry, fill in details or otherwise serve to accomplish the contractual Statement of Work.
 - (2) Provision of written information to the Contractor which assists in the interpretation of drawings, specifications or technical portions of the work description.
 - (3) Review and, where required by the contract, approval of technical reports, drawings, specifications and technical information to be delivered by the Contractor to the Government under the contract.
- (b) Technical direction must be within the scope of work stated in the contract. The COR does not have the authority to, and may not, issue any technical direction which:
 - (1) Constitutes an assignment of additional work outside the Statement of Work;
 - (2) Constitutes a change as defined in the contract clause entitled "Changes";
 - (3) In any manner causes an increase or decrease in the total estimated contract cost, the fixed fee (if any), or the time required for contract performance;
 - (4) Changes any of the expressed terms, conditions or specifications of the contract; or
 - (5) Interferes with the Contractor's right to perform the terms and conditions of the contract.

- (c) All technical directions shall be issued in writing by the COR.
- (d) The Contractor shall proceed promptly with the performance of technical directions duly issued by the COR in the manner prescribed by this clause and within the authority under the provisions of this clause. If, in the opinion of the Contractor, any instruction or direction by the COR falls within one of the categories defined in (b)(1) through (5) above, the Contractor shall not proceed but shall notify the Contracting Officer in writing within five (5) working days after receipt of any such instruction or direction and shall request the Contracting Officer to modify the contract accordingly. Upon receiving the notification from the Contractor, the Contracting Officer shall:
 - (1) Advise the Contractor in writing within thirty (30) days after receipt of the Contractor's letter that the technical direction is within the scope of the contract effort and does not constitute a change under the "Changes" clause of the contract; or
 - (2) Advise the Contractor within a reasonable time that the Government will issue a written change order.
- (e) A failure of the Contractor and Contracting Officer to agree that the technical direction is within the scope of the contract, or a failure to agree upon the contract action to be taken with respect thereto shall be subject to the provisions of the clause entitled "Disputes Alternate I".

H.3 MODIFICATION AUTHORITY (NOV 1997)

Notwithstanding any of the other provisions of this contract, the Contracting Officer shall be the only individual authorized to:

- (a) accept nonconforming work,
- (b) waive any requirement of this contract, or
- (c) modify any term or condition of this contract.

H.4 GOVERNMENT PROPERTY AND DATA - NONE (NOV 1997)

The Government is not obligated to furnish any real or personal property or data under this contract, and the Contractor is not authorized to acquire any real or personal property or data at the Government's expense under this contract.

H.5 GOVERNMENT PROPERTY AND DATA (JAN 1999)

(a) Except as otherwise authorized by the Contracting Officer in writing, the Contractor is not authorized to acquire as a direct charge item under this contract any equipment (including office equipment), furniture, fixtures or other personal property items.

(b) <u>Acquisition Authorization Requirements</u>

- (1) In the course of performance of this contract, the Contractor may only acquire and direct charge to this contract such items on the "List of Government Property -- Contractor Acquired" (Part III -- Section J, Attachment C) to this contract.
- (2) The Contractor may request authorization for acquisition of additional items from the Contracting Officer. Any such request shall include an analysis of the most economical method of acquisition (e.g., lease versus purchase) and shall describe the material equity arising from any proposed lease arrangement, such as option credits.
- (3) Any changes in the acquisition authorization shall be reflected in a modification to this contract which revises the "List of Government Property -- Contractor Acquired" (Part III -- Section J, Attachment C) to this contract.
- (4) Authorization to acquire does not constitute consent to the placement of a subcontract.

(c) Government-Furnished Property and Data

Except as otherwise authorized by the Contracting Officer in writing, only that property and data specifically included in the "List of Government-Furnished Property" (Part III -- Section J, Attachment D) to the contract, shall be furnished.

(d) Reporting Requirements

The reports required shall be submitted in accordance with 48 CFR 945 and the reporting requirements set forth in Part III, Section J, Attachment B.

The reports are to include all capital equipment and sensitive items acquired or furnished under this contract, whether or not listed on the attachments referenced above.

H.6 KEY PERSONNEL/PROGRAM MANAGER (MAR 1998)

The key personnel, which includes the Program Manager, specified below, are considered to be essential to the work being performed under this award; moreover, any changes to these personnel require prior DOE Contracting Officer's written approval.

The Program Manager shall serve as the Contractor's authorized supervisor for technical and administrative performance of all work hereunder. The Program Manager shall receive and execute, on behalf of the Contractor, such technical directions as the DOE Contracting Officer's Representative may issue within the terms and conditions of the contract.

The following is a list of key personnel that have been approved for this contract:

Naı	me	Title		
[]	[]	
[]	[1	

Prior to diverting any of the specified individuals, the Contractor shall notify the Contracting Officer not less than thirty (30) calendar days prior to the diversion or substitution of key personnel and shall submit a written justification (including qualifications of proposed substitutions) to permit evaluation. The proposed changes will be approved in writing at the sole discretion of the Contracting Officer, with concurrence of the Contracting Officer's Representative.

H.7 Travel and Per Diem Costs (FEB 1998)

Costs incurred by contractor personnel for travel, including costs of lodging, other subsistence, and incidental expenses, shall be considered to be reasonable and allowable only to the extent that they do not exceed the rates and amounts set by Subchapter I of Chapter 57 of Title 5, United States Code, or by the Administrator of General Services or the President (or his designee) pursuant to any revision of such subchapter; and are allowable pursuant to the "Allowable Cost and Payment" clause, FAR 52.216-7.

Foreign travel shall be subject to DEAR 952.247-70.

H.8 PRIOR APPROVAL REQUIREMENTS FOR PLACEMENT OF SUBCONTRACTS/ CONSULTANTS (OCT 1998)

The Contractor shall obtain the Contracting Officer's written consent before placing any subcontract, including consultants, for which advance notification is required under FAR 52.244-2, "Subcontracts".

Any request for subcontract/consultant approval shall include the elements prescribed by FAR 52.244-2, including subcontractor/consultant Representations and Certifications. For consultants the Contractor will obtain and furnish information supporting the need for and selection of such consultant services and the reasonableness of the fees to be paid, including, but not limited to, whether fees to be paid to any consultant exceed the lowest fee charged by such consultants to others for performing consulting services of a similar nature.

Except as may be expressly set forth therein, any consent by the Contracting Officer to the placement of subcontracts and/or consultants shall not be construed to constitute approval of the subcontractor or any subcontract terms or conditions, determination of the allowability of any cost, revision of this contract or any of the respective obligations of the parties thereunder, or creation of any subcontractor privity of contract with the Government.

The Contractor is hereby given consent to the placement of the following subcontractors, which were evaluated during negotiations:

[] []

Notwithstanding this consent, the Contractor shall ensure compliance with FAR 52.244-2. Also, since these subcontracts and/or consultants have as a purpose the conduct of research, development and demonstration work, they must additionally contain all applicable flow-down clauses contained in Part II, Section I.

H.9 SUBCONTRACTOR FACILITIES CAPITAL COST OF MONEY (FEB 1998)

(a) To the extent a subcontractor proposes to recover as an element of proposed cost any Facilities Capital Cost of Money (FCCOM) from a higher tier subcontractor or from the prime contractor, the FCCOM cost principle (FAR 31.205-10) shall apply to subcontracts and new scope modifications issued thereto which are fee bearing cost reimbursement type or negotiated fixed price type.

(b) To the extent a subcontractor is eligible to recover yet does not propose as an element or proposed cost any Facilities Capital Cost of Money (FCCOM) from a higher tier subcontractor or from the prime contractor, the higher tier subcontractor or the prime contractor shall insert the following provision in any such subcontract or new scope modification issued thereto:

Waiver of Facilities Capital Cost of Money (FAR 52.215-17, OCT 1997)

The Contractor did not include facilities capital cost of money as a proposed cost of this contract. Therefore, it is an unallowable cost under this contract.

(c) The Contractor agrees to insert the substance of this clause, including this paragraph (c) altered as necessary for proper identification of the parties, in any subcontract placed hereunder which is a fee bearing cost reimbursement or negotiated fixed price type.

H.10 Confidentiality of Information (MAY 1998)

To the extent that the work under this contract requires that the Contractor be given access to confidential or proprietary business, technical, or financial information belonging to the Government or other companies, the Contractor shall, after receipt thereof, treat such information as confidential and agree not to appropriate such information to its own use or to disclose such information to third parties unless specifically authorized by the Contracting Officer in writing. The foregoing obligations, however, shall not apply to:

- (a) Information which, at the time of receipt by the Contractor, is in the public domain;
- (b) Information which is published after receipt thereof by the Contractor or otherwise becomes part of the public domain through no fault of the Contractor;
- (c) Information which the Contractor can demonstrate was in his possession at the time of receipt thereof and was not acquired directly or indirectly from the Government or other companies;
- (d) Information which the Contractor can demonstrate was received by it from a third party who did not require the Contractor to hold it in confidence.

The Contractor shall obtain the written agreement, in a form satisfactory to the Contracting Officer, of each employee permitted access, whereby the employee agrees that he will not discuss, divulge or disclose any such information or data to any person or entity except those persons within the Contractor's organization directly concerned with the performance of the contract.

The Contractor agrees, if requested by the Government, to sign an agreement identical, in all material respects, to the provisions of this clause, with each company supplying information to the Contractor under this contract, and to supply a copy of such agreement to the Contracting Officer. From time to time upon request of the Contracting Officer, the Contractor shall supply the Government with reports itemizing information received as confidential or proprietary and setting forth the company or companies from which the Contractor received such information.

The Contractor agrees that upon request by DOE it will execute a DOE-approved agreement with any party whose facilities or proprietary data it is given access to or is furnished, restricting use and disclosure of the data or the information obtained from the facilities. Upon request by DOE, such an agreement shall also be signed by Contractor personnel.

This clause shall flow down to all subcontracts.

H.11 REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF THE OFFEROR (JUNE 1998)

The Representations, Certifications and Other Statements of the Offeror for this contract are hereby incorporated by reference.

H.12 AUTOMATIC DATA PROCESSING EQUIPMENT (ADPE) USAGE (NOV 1997)

ADPE requirements which were not included in the Contractor's original proposal may not be acquired (leased or purchased) without the prior written consent of the Contracting Officer. Whenever Contracting Officer written consent is required, the Contractor will furnish to the Contracting Officer information concerning the need for and selection of such ADPE, the specific make(s) and model(s), and the lease versus purchase determination.

H.13 AUTOMATIC DATA PROCESSING EQUIPMENT (ADPE) LEASING (NOV 1997)

- (a) If the Contractor leases ADPE equipment for use under this contract, the Contractor shall include a provision in the rental contract stating that the Government shall have the unilateral right to exercise any purchase option under the rental contract between the Contractor and the ADPE equipment vendor and to realize any other benefits earned through rental payments.
- (b) The Contractor shall furnish a copy of the rental contract to the Contracting Officer under the terms of this provision.

H.14 INDIRECT COSTS (NOV 1997)

Pending establishment of final indirect cost rates for any period, billing and reimbursement of indirect costs shall be made on the basis of provisional rates recommended by the cognizant Government auditor. When a rate change occurs, and after it has been audited and approved by the cognizant Government auditor, the contractor shall inform the Contracting Officer by letter of the indirect rate change. This notification shall include a copy of the cognizant auditor's approval and the cost impact of the rate change on the program.

H.15 GUARANTEED FINAL REPORT (NOV 1997)

Notwithstanding the applicable cost principles of the Federal Acquisition Regulation (FAR) and the DOE Acquisition Regulation (DEAR) in effect on the date of this contract, and as authorized by Paragraph (a) of the clause of this contract entitled "Allowable Cost and Payment," the contractor agrees to manage this contract in such a manner so as to guarantee to the Government the delivery of an acceptable Final Report. It is the contractor's responsibility to ensure at all times that adequate funds remain to cover all allowable costs necessary for the preparation and delivery of the acceptable Final Report. All costs incurred by the contractor during preparation and delivery of the acceptable Final Report that are in excess of the funds remaining in the contract shall be borne by the contractor.

H.16 <u>COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL</u> REQUIREMENTS (FEB 1998)

In performing work under this contract, the Contractor shall comply with all relevant federal, state, and local statutes, ordinances, laws, and regulations.

H.17 NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) -- PRIOR APPROVALS (JAN 2000)

The National Environmental Policy Act of 1969 (NEPA) requires that all Federal agencies consider the impacts of their projects on the human environment. As part of the DOE's NEPA requirements, the Contractor shall be required to supply to the DOE certain environmental information. DOE funds may only be expended by the Contractor on [ACTIVITIES THAT CAN BE PERFORMED UNTIL THE NEPA DOCUMENT IS SIGNED] activities, until DOE notifies the Contractor that all NEPA requirements have been satisfied.

H.18 CONTRACTOR PRESS RELEASES (APR 1998)

The DOE policy and procedure on news releases requires that all Contractor press releases be reviewed and approved by DOE prior to issuance. Therefore, the Contractor shall, at least ten (10) days prior to the planned issue date, submit a draft copy to the Contracting Officer of any planned press releases related to work performed under this contract. The Contracting Officer will then obtain necessary reviews and clearances and provide the Contractor with the results of such reviews prior to the planned issue date.

H.19 PERMITS AND LICENSES (JAN 1999)

Within sixty (60) days of award, the Contractor shall submit to the DOE Contracting Officer Representative (COR) a list of ES&H approvals that, in the Contractor's opinion, shall be required to complete the work under this award. This list shall include the topic of the approval being sought, the approving authority, and the expected submit/approval schedule. The COR shall be notified as specific items are added or removed from the list and processed through their approval cycles.

The Contractor agrees to include this clause in their first-tier subcontracts and agrees to enforce the terms of this clause.

H.20 QUALITY ASSURANCE/QUALITY CONTROL (JUNE 1998)

The Contractor shall implement the DOE work using Quality Assurance/Quality Control measures as appropriate to:

- (a) Achieve accuracy, precision, and reproducibility of data adequate to fulfill the objectives of the work to be performed under this award;
- (b) Control experimental operations using accepted technical standards, instruction, and other appropriate means commensurate with the complexity and the risk of the work;
- (c) Identify, control and maintain components, equipment, facilities, hardware and materials:
- (d) Control handling, storage, shipping. Cleaning and preservation to prevent damage, loss or deterioration:
- (e) Control calibration, maintenance, accountability, and use of measuring and testing equipment used for monitoring and data collection;

- (f) Ensure that designs use sound engineering/scientific principles and appropriate standards and demonstrate that equipment and processes performed as intended;
- (g) Ensure that purchased items and services meet established specifications and requirements;
- (h) Incorporate inspections as appropriate;
- (i) Continually improve the quality of the work done for DOE through the improvement of work practices guided by internal performance assessment.

H.21 SAFETY & HEALTH AND ENVIRONMENTAL PROTECTION (JUNE 1998)

- (a) The Contractor shall implement the DOE work in accordance with all applicable Federal, State and local law as, including codes, ordinances and regulations, covering safety, health and environmental protection.
- (b) The Contractor agrees to include paragraph (a) of this clause in first-tier subcontracts and agrees to enforce the terms of this clause.

H.22 CONTRACTOR LICENSING (APR 1998)

(a) <u>Limited Rights Data Or Restricted Computer Software</u>

(b) <u>Background Patents</u>

"Background Patent" means a domestic patent covering an invention or discovery which is not a subject invention and which is owned or controlled by the contractor at any time through the completion of this contract, infringement of which cannot reasonably be avoided upon the practice of any specific process, method, machine, manufacture or composition of matter (including relatively minor modifications thereof) which is a subject of the research, development, or demonstration work performed under this contract.

The contractor agrees that upon written application by DOE, it will grant to the Government for purposes of practicing [by or for the Government for the purpose of remediation or decontamination of chemically contaminated or radioactive sites, nonexclusive license(s) under any background patent on terms that are reasonable under the circumstances. If, however, the contractor believes that exclusive or partially exclusive rights are necessary to achieve expeditious commercial development or utilization, then a request may be made to the Director of Environmental and Waste Management or designee for approval of such licensing by the contractor. Notwithstanding the foregoing, the contractor shall not be obligated to license any background patent if the contractor demonstrates to the satisfaction of the Director of Environmental Restoration and Waste Management or designee that the contractor or its licensees are supplying the subject matter covered by said background patent in sufficient quantity and at reasonable prices to satisfy DOE needs, or have taken effective steps or within a reasonable time are expected to take effective steps to so supply the subject matter.

(c) <u>Licensing Intellectual Property for Performing the Contract</u>

The contractor also agrees and does hereby grant to the Government a royalty-free, non-exclusive license under any background patent or to any limited rights or restricted computer software for purposes of practicing a subject of this contract by or for the Government in research, development, or demonstration under this contract.

H.23 RIGHTS IN TECHNICAL DATA (EM-DELIVERY) (SEPT 1999)

<u>Delivery of limited rights data.</u> The Contractor shall, at the option of the Contracting Officer, be required to deliver any limited rights data used in the performance of this contract. Such data shall be subject to the provision of clause FAR 52.227-14, Rights in Data--General with Alternatives II and V, paragraph (g), "Protection of limited rights data and restricted computer software," and to the "Contractor Licensing" provisions in this Section H.

1. The limited rights data subject to clause FAR 52.227-14 are listed below [OR in Attachment () attached hereto and made a part hereof]. This listing of data, which are asserted by the Contractor to be limited rights data, does not constitute an admission by the Government that the data is in fact limited rights data.

-	R TO IDENTIFY/CEI RIETARY (STATEMI	
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- 2. Subject to clause FAR 52.227-14 paragraph (g)(2), any limited rights data so delivered shall be marked with the appropriate "Limited Rights Notice."
- 3. The Contractor shall not introduce or utilize any limited rights data not identified in (1) above without advance written notification of the Contracting Officer.

<u>Minimum technical data deliverable with unlimited rights</u>. Not withstanding any other provision of this Contract, the following technical data first produced under this Contract as a minimum, shall be delivered to the DOE with unlimited rights:

[THE COR WILL SPECIFY WHAT DATA DOE WANTS TO HAVE DELIVERED WITH UNLIMITED RIGHTS]

H.24 RIGHTS IN TECHNICAL DATA (EM-INSPECTION) (SEPT 1999)

Withholding of limited rights data. Notwithstanding the inclusion of clause FAR 52.227-16, Additional Technical Data Requirements, in this Contract or any provision of this Contract specifying the delivery of technical data, the Contractor may withhold limited rights data from delivery, provided that the Contractor furnishes in lieu of any such limited rights data so withheld technical data disclosing the source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements ("Form, Fit and Function" data, e.g., specification control drawing, catalog sheets, envelope drawings, etc.), or a general description of such limited rights data where "Form, Fit and Function" data are not applicable. Such data shall be subject to the provision of clause FAR 52.227-14, Rights in Data--General with Alternative V, paragraph (j), "Inspection rights," and paragraph (g), "Protection of limited rights data and restricted computer software," and to the "Contractor Licensing" provisions in Section H.

1. The limited rights data subject to clause FAR 52.227-14 are listed below [OR in Attachment () attached hereto and made a part hereof]. This listing of data, which are asserted by the Contractor to be limited rights data, does not constitute an admission by the Government that the data is in fact limited rights data.

	STRACTOR TO IDENTIFY/CERTIFY SPECIFIC DATA ASSERTED BE PROPRIETARY (STATEMENT FROM CONTRACTOR)]
[.	
_]

- 2. Subject to clause FAR 52.227-14 paragraph (j), any limited rights data specifically used in the performance of this Contract shall, at the option of the Contracting Officer, be available for inspection by a designee of the Contracting Officer at the project facility.
- 3. The Contractor shall not introduce or utilize any limited rights data not identified in paragraph (1) above in the performance of the contract work without the expressed written permission of the Contracting Officer.

Minimum technical data deliverable with unlimited rights. Not withstanding any other provision of this Contract, the following technical data first produced under this Contract as a minimum, shall be delivered to the DOE with unlimited rights:

[THE COR WILL SPECIFY WHAT DATA DOE WANTS TO HAVE DELIVERED WITH UNLIMITED RIGHTS]

H.25 RESTRICTED COMPUTER SOFTWARE (EM-DELIVERY) (SEPT 1999)

The restricted computer software subject to the provisions of clause FAR 52.227-14, Rights in Data--General with Alternatives III and V, paragraph (g), and to the provisions of the clause entitled "Contractor Licensing," are listed below. This list of software programs, which are asserted by the Contractor to be restricted computer software, does not constitute an admission by the Government that the software is in fact restricted computer software.

[CONTRACT	OK 1	ОШ	ENTIFY/CERTIFY	SPECIFIC SOF	TWARE
ASSERTED	TO	BE	PROPRIETARY	(STATEMENT	FROM
CONTRACTO	OR)]				
[
<u> </u>					1

Subject to clause FAR 52.227-14 paragraph (g)(3), any restricted computer software specifically used in the performance of this Contract shall, at the option of the Contracting Officer, be delivered to the Government. Any restricted computer software so delivered shall be marked with the "Restricted Rights Notice" provided in clause FAR 52.227-14 paragraph (g)(3).

The Contractor shall not introduce or utilize any restricted computer software not identified above without advance written notification of the Contracting Officer.

H.26 RESTRICTED COMPUTER SOFTWARE (EM-INSPECTION) (SEPT 1999)

The restricted computer software subject to the provisions of clause FAR 52.227-14, Rights in Data--General with Alternative V, paragraphs (j) and (g), and to the provisions of the clause entitled "Contractor Licensing", are listed below. This list of software programs, which are asserted by the Contractor to be restricted computer software, does not constitute an admission by the Government that the software is in fact restricted computer software.

[CONTRACT	OR T	O ID	ENTIFY/CERTIFY	SPECIFIC	SOF	ΓWARE
ASSERTED	TO	\mathbf{BE}	PROPRIETARY	(STATEM)	ENT	FROM
CONTRACTO	OR)]					
[
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Subject to clause FAR 52.227-14 paragraph (j), any restricted computer software specifically used in the performance of this Contract shall, at the option of the Contracting Officer, be available for inspection by a designee of the Contracting Officer at the project facility.

The Contractor shall not introduce or utilize any restricted computer software not identified above without advance written notification of the Contracting Officer.

H.27 YEAR 2000 COMPLIANCE (APR 1998)

Year 2000 compliant means, with respect to information technology, the information technology accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology being acquired, properly exchanges date/time data with it.

The contractor assures, by acceptance of this award, that any items delivered under this contract are year 2000 compliant.

H.28 <u>LOBBYING RESTRICTION (ENERGY & WATER DEVELOPMENT APPROPRIATIONS ACT, 2000) (DEC 1999)</u>

The contractor agrees that none of the funds obligated on this award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

A copy of the DOE "Lobbying Brochure" which provides a summary of the statutory and regulatory restrictions regarding lobbying activities for Federal contractors can be found at (http://www.pr.doe.gov/lobbying.html)

H.29 NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS (DEC 1999)

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

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ATTACHMENT A STATEMENT OF WORK

STATEMENT OF WORK

"Demonstration of Innovative, Improved Field Methods for In Situ Delineation and Assessment of Contamination Located in Difficult Subsurface Conditions at DOE Sites"

A. SCOPE OF WORK

DOE Nuclear Weapons Complex sites contain soil and groundwater contamination that occurs in difficult subsurface settings that provide challenges to efficiently and cost-effectively access the contamination to accurately characterize its location and quantity. Specific examples of subsurface conditions where contamination can be located and difficult to access include, but are not limited to, the following: beneath buildings and other manmade structures such as underground tanks and buried pipelines; at depths that reach up to 45 meters or more; in difficult-to-penetrate sediments that include beds of gravel, layers of caliche, and others; and in highly heterogeneous geologic settings that include sediment facies containing complex interbeds and structures that provide conditions that are difficult to model and predict fluid flow through. The objectives of this study are twofold and include development and demonstration of a technology system that can: 1) access contamination located in both the vadose zone and saturated zone, in difficult subsurface conditions such as those conditions named above and, 2) use in situ field measurement techniques to determine both contaminant spatial distribution and quantity in concentration levels. Results shall be provided in near real-time, and meet the DOE demonstration site requirements for specifying contaminant spatial distribution, and detecting and quantifying contaminant concentration levels. The technology system prototype shall include all equipment/instrumentation hardware, software, operational plans, operating procedures, other support documentation, and any other components required to operate the system. End products of this project shall be submitted to DOE and shall include the technology system prototype and all data results collected in the development and demonstration of the technology system.

The technology system shall be designed to perform under broad operating conditions that exist at DOE waste or contaminated sites. Initially, field tests and demonstration of the technology system shall be completed at a DOE site such as Hanford, and field test areas shall be selected in conjunction with the demonstration site. The sites shall contain conditions that are representative of difficult subsurface settings such as those named above, and the technology system prototype development and testing shall be targeted toward Dense Nonaqueous Phase Liquids (DNAPL) contamination specified by DOE and the demonstration site. Field tests shall also include independent methods to validate operating performance and data results of the technology system in terms of the twofold objective: the ability to access contamination in difficult settings, and the ability to accurately determine contaminant spatial distribution and quantity in concentration levels. The technology system may also be deployed to other DOE sites for the purposes of collecting additional performance and cost benefit data.

B. TASKS TO BE PERFORMED

The Statement of Work for this demonstration is structured into Phase I and Phase II. Phase I shall include: advanced engineering design of prototype system, building of prototype system, factory/laboratory/field control tests, field tests at selected DOE demonstration sites containing conditions representative of difficult subsurface settings, independent validation of test results, and supporting activities. Phase II shall include full scale demonstration of the technology system at a selected DOE site containing conditions representative of difficult subsurface settings, independent validation of test results, and supporting activities A project review and contract decision point for continuance of the contract into Phase II (contract go/no go decision point), shall be a milestone placed between Phase I and Phase II. The contractor shall provide all labor, equipment, and materials to complete the following tasks.

PHASE I

Task 1.0--Coordination and Planning

This task shall consist of necessary activities to ensure coordination and planning of the project with DOE/NETL, the selected DOE demonstration site, potential end-users of the technology, and the DOE Environmental Management (EM) technology development program. The roles and responsibilities of the project team in these interactions shall be clearly identified and be provided for review and approval by DOE and DOE-selected representatives. The contractor shall coordinate with the selected demonstration site in planning, preparing, and submitting for review any specific documents that shall be required by the demonstration site and by DOE/NETL. The contractor shall also coordinate with the selected demonstration site to ensure that the performance requirements and end-user needs for the technology demonstrations are fully understood and shall be met for the project. Other coordination activities shall include, but are not limited to the following.

Project Kick-off Meeting

Contractor shall brief DOE and DOE-selected representatives of project plans at a Kick-off meeting at a site selected by DOE.

NEPA Documentation

The contractor shall provide appropriate levels of NEPA documentation required for the project to DOE and DOE-selected representatives.

Document preparation and submission

Other documents necessary for coordination and planning of the project activities, as identified by DOE/NETL and the selected demonstration site, shall be prepared and submitted for review and approval to DOE and DOE-selected representatives. These may include, but are not limited to, submission of a Quality Assurance Project Plan and submission of a plan to fulfill ES&H (Environmental, Safety, and Health) requirements of the demonstration site for the planned field tests and activities. Other required reporting documents are listed in the contract Reporting Requirements List.

<u>Task 2.0--Test Site Selection/Assessment in Preparation for Advanced Engineering Design of Prototype System and Field Test Design</u>

In conjunction with the DOE demonstration site and DOE/NETL, the contractor shall complete final site selection for the Phase I field tests. A minimum of two sites shall be selected that are representative of subsurface conditions considered difficult to access and characterize contaminant spatial distribution and quantity. Upon selection, the contractor shall coordinate with DOE demonstration site representatives to collect background information regarding the site necessary to complete final design of the technology system and plan the technology field tests in Phase I. This inventory of information may include, but is not limited to the following: physical characterization data including well data, geologic data and models, hydrologic data and models, geophysical surveys, and others; history of the site; and contamination information. Other site data may be required that is technology specific information, and the contractor shall coordinate with the DOE demonstration site to determine availability. The contractor shall provide to DOE and DOE selected representatives, base maps for the selected field tests sites that are of appropriate scale.

Task 3.0-- Advanced Engineering Design, Constructing of Prototype System, and Control Testing

The contractor shall conduct all activities necessary to complete design and constructing of the technology system prototype, and any required control testing offsite to the demonstration site, that shall be necessary to ensure proper operation of the prototype prior to conducting field tests at the demonstration site. This shall include any required detailed design for the prototype system. This shall also include constructing of the prototype system that may include equipment/instrument fabrication and software development, and any control tests in a laboratory, factory, field site or other setting that is offsite to the demonstration site. Results of the offsite control testing shall be provided to DOE and DOE-selected representatives for review.

Engineering Design

The selected technology system is required to be at the advanced engineering stage (proof of concept testing and/or preliminary field testing previously conducted and available for review), in which previous design work had been completed. This design activity shall proceed from design work completed prior to this project, and complete any necessary modification and/or final design of the technology system. As the technology may be an integrated system, this may include, but is not limited to final design of equipment/instrumentation hardware, software, or any other components. Final system design shall be submitted to DOE and DOE selected representatives for review.

Constructing Prototype System

This activity shall consist of acquisition of necessary parts and materials, and constructing of the prototype technology system. This may include, but is not limited to, fabrication of equipment/instruments, development of software, and building and integration of any subsystems that comprise the entire prototype technology system.

Control Testing Prototype System

This activity shall consist of any factory, laboratory, or field testing offsite to the demonstration site, that shall be necessary to ensure proper operation of the prototype technology system. A plan of the proposed control testing shall be provided to DOE and DOE-selected representatives for review.

Task 4.0--Test Plan

The Contractor shall develop and submit to DOE and DOE-selected representatives for review, a detailed test plan for the field testing of the technology system designed to meet the twofold objectives: access contamination located in both the vadose zone and saturated zone in difficult subsurface conditions and, use in situ field measurement techniques to determine both contaminant spatial distribution and quantity in concentration levels. The test plan shall detail the technical and operational elements of this testing. The test plan shall be written in the context of the selected DOE demonstration site and shall contain all components required by the host site. The test plan must be approved prior to site mobilization to the demonstration site for the field tests. Typical components of a test plan include, but are not limited to, the following: technology description; field test objectives; experimental design and procedures; site preparation, equipment, and materials; sampling and analyses plan; data management; data analysis and interpretation; Environmental, Safety, and Health (ES&H) plan; waste management and decontamination plans; public participation; reporting; schedules; regulatory compliance; project organization; and supplementary material (provides more detailed information for field sampling plan, quality assurance project plan, ES&H plan, waste management plan, public participation plan, readiness review plan, regulatory compliance plan, and standard operating procedures). The test plan shall also include a plan for the verification of the field test results using independent field sampling data, control tests, or other acceptable means.

The draft test plan shall be submitted to DOE and DOE-selected representatives at the demonstration site and DOE/NETL for review and approval. Any modifications must be made, and the test plan must be resubmitted and accepted for approval.

Task 5.0--Field Tests and Support Activities

Contractor shall conduct field tests at a minimum of two sites selected jointly by the contractor, the DOE demonstration site, and DOE/NETL using the prototype system developed to access the difficult subsurface conditions to determine contaminant spatial distribution and quantity in concentration levels. Task shall include activities necessary to complete verification of these field test results using independent field sampling, control tests, or other acceptable means. Task also includes support activities necessary to complete field testing such as, but not limited to, the following: site mobilization/demobilization, site preparation, facilities/utilities requirements, waste management and decontamination, and site restoration. The test plan must be approved by DOE and DOE selected representatives of the demonstration site prior to conducting these activities. The contractor shall coordinate fully with the demonstration site to perform these activities as planned in the approved test plan.

Mobilization and Demobilization

The contractor shall coordinate with the demonstration site to mobilize and bring the prototype technology system to the site along with all required personnel. At completion of field testing activities, the contractor shall demobilize equipment and personnel.

<u>Site Preparation, Facilities/Utilities, and Waste Management Preparation and Management</u>
Prior to any site work, all ES&H document control and reporting, regulatory document and control reporting requirements, and any other site-specific documentation must be submitted and approved by the DOE demonstration site.

This element includes the Contractor's responsibility to coordinate with the demonstration site DOE and contractor representatives for all required site preparation, utilities, waste management, and other specific resources required to support the demonstration project. These requirements are technology specific, and the contractor shall coordinate with the demonstration site to ensure that all required support is readied prior to commencing of field testing. For example, this may include preparing a staging area for equipment and other materials needed during the field demonstration. In addition, the contractor shall coordinate with the demonstration site to ensure all facilities/utilities requirements needed for the field demonstration are readied. The contractor shall provide sources for these requirements, as coordinated with and approved by the demonstration site. The contractor shall also coordinate with the demonstration site in determining waste management requirements and health and safety requirements for the field testing. The contractor shall coordinate with the demonstration site to ensure waste management requirements prior to, during, and after any field testing are met.

Field Tests

The contractor shall complete the necessary activities to conduct field testing of the prototype technology system at the demonstration site according to the approved test plan, to access the subsurface, and to determine contaminant spatial distribution and quantity in concentration levels. The contractor shall coordinate with the demonstration site representatives to ensure that all site requirements are met prior to, during, and after the field tests.

It is expected that the demonstration sites selected will contain subsurface conditions that are representative of areas that are difficult to access and characterize contamination in, such as the DOE Hanford 200 West Area, 200-ZP-1 Operable Unit. It is expected that DNAPL carbon tetrachloride contamination in both the vadose zone and saturated zone will be the target of the studies. Two test areas or field cells shall be selected for completion of the field testing. Each test area or field cell shall include a minimal field area that is bound by surface dimensions of approximately 95 meters by 95 meters. Each test area or cell may contain existing wells varying in number from zero to four. Contamination concentration levels within the designated test areas or cells, may vary for the targeted contaminant. Contamination may be found in the vadose zone, the saturated zone, or both.

The operational conditions are expected to fall within the following: required depth of operation ranges from surface to 110 meters; operation required in both the vadose zone and saturated zone for both the access methodology, and the methodology for determining contaminant spatial distribution and quantity in concentration levels; carbon tetrachloride contamination that may be present in the vadose zone (soil vapor, soil moisture, sorbed to solids, and residual) and the groundwater that is expected to range from minimum of 5 micrograms per liter to maximum of 10,000 micrograms per liter; carbon tetrachloride contamination may reside with other co-contaminants that may be radionuclides and other chemicals; subsurface settings that contain one or more conditions described as difficult-to-access such as beneath and around buildings and other manmade structures such as underground tanks and buried pipelines; layers of gravel; layers of caliche; complex sediment facies such as interbeds of silt, sand, and gravel and/or beds containing structures such as fractures and clastic dikes.

The tests shall include operation of the prototype technology system for data collection, reduction, analyses, and interpretation. Field testing interval shall be the length of time specified in the approved test plan. Not later than 48 hours from the start of the testing, initial test results from the data acquisition shall be provided in a "Quick Look" report that shall be in a format that is specified in the approved test plan. All results from the testing, shall be provided at the time intervals and in a format that was specified in the approved test plan. Testing results shall also be provided in the Topical Report submitted at the completion of Phase I.

Initial test results shall be evaluated, as specified in the approved test plan, to determine if the prototype system is operating properly. Minor modifications or adjustments to the system may be completed to enhance operation of the technology system, and retesting may be completed. The contractor shall coordinate with the DOE demonstration site to determine the degree and length of any retesting that may be needed and permitted at the demonstration site.

The field test results shall be evaluated with respect to meeting the twofold objectives: 1) to access contamination located in both the vadose zone and saturated zone in difficult subsurface conditions and, 2) use in situ field measurement techniques to determine both spatial distribution and quantity of contamination (concentration levels). The number of and degree to which the following performance criteria are met shall be evaluated:

- Ability to access and determine carbon tetrachloride (CCl₄) concentration levels in vadose zone (soil vapor, soil moisture, sorbed to solids, and residual) and groundwater in difficult subsurface conditions that include complex sediment facies, gravel, caliche, beneath man-made obstructions, and excessive depths (greater than 85 meters). Must be capable of measuring CCl₄ levels in groundwater ranging from maximum of 10,000 micrograms per liter CCl₄ to minimum of 5 micrograms per liter CCl₄. CCl₄ may occur in both aqueous phase and free phase (DNAPL).
- Capable of depth profile measurements ranging from the surface to depths of approximately 110 meters and capable of making measurements at multiple depths at discrete points on scale of several centimeters.

- Ability to provide real-time measurements and data results. A system with automatic measurements that is capable of remote downloading is preferred. Technologies that take advantage of existing extraction, injection, or monitoring wells, would be permitted.
- Ability to use measured concentration levels to produce spatial plots with the location and concentration of CCl₄ contamination both above and below the water table. Ability to report results in field coordinates and through use of visualization tools to plot isopleths of concentrations. Ability to map discrete lenses and pools of variable concentrations within the entirety of the plume. Methodology may involve integration of techniques, therefore integrated results are desired within 48 hours.
- Ability to measure time-variant changes of the combined plume configuration (spatial distribution) and the concentration levels, and provide results within 48 hours.
- Non-invasive or minimally invasive, eliminate or reduce Investigative Derived Waste (IDW), and prevent cross-contamination. For example, use of sensors in existing wells, use of geophysical or other remote sensing technologies, and methodologies involving cross-hole tests reduce or eliminate IDW. Reasonable measures should be made to ensure waste minimization.
- Robust in order to operate in remote, harsh field environment where access is limited and utilities are not readily available.
- Ability to provide technology performance and results which are verifiable with independent field data, controlled tests, or other acceptable means.
- Ability to minimize operational time including rapid site mobilization, completion of operations, and demobilization. The technology should operate reliably, with minimal scheduled or unscheduled outages for maintenance or repair.
- Demonstrated cost savings compared to baseline drilling and sampling methods, and able to operate within acceptable demonstration site Environmental, Safety, and Health requirements, and regulatory and stakeholders requirements.

Independent Validation of Results

The contractor shall complete an independent validation of test results that were obtained with the prototype technology system, using an acceptable plan that was provided in the approved test plan. This independent validation is intended to corroborate the operation of the prototype technology system, and is intended to be a measure of its accuracy and ability to meet the performance criteria. For example, baseline sampling methods, control testing, or other acceptable means approved by DOE and the demonstration site could be used to verify field results. The contractor shall provide the resources necessary to complete this independent validation of test results. Results of this validation testing shall be provided as outlined in the approved test plan.

Site Restoration

The Contractor shall coordinate with DOE and DOE demonstration site representatives with regards to demobilization and site restoration, to ensure acceptable conditions upon completion of the field testing. The site shall be reclaimed to a condition as coordinated with and acceptable to the DOE demonstration site.

Task 6.0-- Reporting

The contractor shall prepare and present a briefing of Phase I results, and planned project work for Phase II, at DOE NETL or another site selected by DOE. This presentation shall take place not less than 45 days before the expiration of the Phase I contract. The contractor shall prepare for review and comments, a draft Topical Report on the Phase I contract activities. This report shall follow the guidelines set forth in the contract and shall include, but not be limited to: prototype system design, construction, and control testing; required project test plans and other documentation for the demonstration site; description of and results from Phase I testing; results from independent validation; and initial cost estimates of technology and cost benefits of technology compared to baselines and alternative technologies. After review and comment by the DOE and DOE selected representatives, the contractor shall revise the report and submit to DOE.

Attendance and presentation at Annual Industry Programs Conference. The Contractor shall attend and prepare project status for presentation at the Annual Industry Programs Contractor Review Meeting at DOE NETL.

Attendance and presentation at the Subsurface Contaminant Focus Area Annual Midyear Review. The Contractor shall attend and prepare project status for presentation at the Subsurface Contaminant Focus Area annual Midyear Review at a location to be determined.

At this time, the DOE will evaluate the merits of the project to determine if, and to what extent, Phase II (Tasks 7.0, 8.0, 9.0, and 10.0) shall be conducted. The contractor shall not proceed with these Phase II tasks unless the Contracting Officer issues a modification to the contract to exercise Phase II. If the Government elects not to pursue the Phase II tasks, the contractor shall complete all of the remaining work defined in the Phase I contract.

PHASE II. (OPTIONAL)

<u>Task 7.0-- Coordination/Planning and Site Selection/Assessment in Preparation for Full Scale</u> Demonstration

This task shall proceed only after the review of the Phase I contract results by DOE and DOE-selected representatives, and the approval to proceed from the DOE/NETL Contracting Officer. This task shall include activities necessary to ensure coordination and planning of the full scale demonstration with the selected demonstration site. This shall include submission of any specific documentation required by the demonstration site and by DOE/NETL. The contractor shall coordinate with the selected demonstration site to ensure that the performance requirements and enduser needs for the technology full scale demonstration are fully understood and will be met for the Phase II project. The task shall also include those activities required to select a full scale demonstration site. Other coordination activities shall include, but are not limited to the following.

NEPA and other documentation required for demonstration.

Appropriate level of NEPA documentation shall be provided to DOE and DOE demonstration site representatives. Other site-specific documentation, required by the demonstration site and by DOE/NETL to proceed with the testing, shall be submitted.

Site Selection/Site Assessment

In conjunction with the DOE demonstration site and DOE/NETL, the contractor shall complete final site selection for the Phase II full scale demonstration. Upon selection, the contractor shall coordinate with DOE demonstration site representatives to determine availability of, and to collect background information regarding the site necessary to plan the Phase II full scale demonstration. This inventory of information may include, but is not limited to the following: physical characterization data including well data, geologic data and models, hydrologic data and models, geophysical surveys, and others; history of the site; and information regarding contamination. Other site data may be required that is technology specific information, and the contractor shall coordinate with the DOE demonstration site to determine availability and receipt of such data. The contractor shall provide to DOE base maps for the selected full scale demonstration site that are of appropriate scale.

Task 8.0--Test Plan

The Contractor shall develop and submit to DOE and DOE-selected representatives for review, a detailed test plan for the full scale demonstration of the technology system designed to meet the twofold objectives: access contamination located in both the vadose zone and saturated zone in difficult subsurface conditions and, use in situ field measurement techniques to determine both contaminant spatial distribution and quantity in concentration levels. The test plan shall detail the technical and operational elements of this testing, and shall include a plan for the verification of the

technology system field test results using independent field sampling, control tests, or other acceptable means. The test plan shall be written in the context of the selected DOE demonstration site and shall contain all components required by the host site. The test plan must be approved prior to site mobilization for the full scale demonstration. The draft test plan shall be submitted to DOE and DOE-selected representatives at the demonstration site and DOE/NETL for review and approval. Any modifications must be made, and the test plan must be resubmitted and accepted for approval.

Task 9.0--Full-scale Demonstration

Contractor shall conduct a full scale demonstration at a site selected jointly by the contractor, the DOE demonstration site, and DOE/NETL, using the prototype system developed to access the difficult subsurface conditions and to determine contaminant spatial distribution and quantity in concentration levels. Task shall include activities necessary to complete verification of these field test results using independent field sampling, control tests, or other acceptable means. Task also includes support activities necessary to complete field testing that shall include, but are not limited to the following: site mobilization/demobilization; site preparation; facilities/utilities requirements; waste management and decontamination; and site restoration. The test plan must be approved by DOE and DOE selected representatives of the demonstration site prior to conducting these activities. The contractor shall coordinate fully with the demonstration site to perform these activities as planned in the approved test plan.

Mobilization and Demobilization

The contractor shall coordinate with the demonstration site to mobilize and bring the prototype technology system to the site along with all required personnel. At completion of field testing activities, the contractor shall demobilize equipment and personnel.

Site Preparation, Facilities/Utilities, and Waste Management Preparation and Management

The test plan must be approved prior to conducting these activities. Prior to any site work, all ES&H document control and reporting, regulatory document and control reporting requirements, and any other site-specific documentation must be submitted and approved by the DOE demonstration site.

This element includes the Contractor's responsibility to coordinate with the demonstration site DOE and contractor representatives for all required site preparation, utilities, waste management, and other specific resources required to support the demonstration project. These requirements are technology specific, and the contractor shall coordinate with the demonstration site to ensure that all required support is readied prior to commencing of field testing. For example, this may include preparing a staging area for equipment and other materials needed during the field demonstration. In addition, the contractor shall coordinate with the demonstration site to ensure all facilities/utilities requirements needed for the field demonstration are readied. The contractor shall provide sources for these requirements, as coordinated with and approved by the demonstration site. The contractor shall also

coordinate with the demonstration site in determining waste management requirements and health and safety requirements for the field testing. The contractor shall coordinate with the demonstration site to ensure waste management requirements prior to, during, and after any field testing are met.

Full Scale Field Demonstration

The contractor shall complete the necessary activities to conduct full scale demonstration of the prototype technology system at the demonstration site according to the approved test plan. The contractor shall coordinate with the demonstration site representatives to ensure that all site requirements are met prior to, during, and after the field tests.

It is expected that the demonstration site selected will contain subsurface settings that are representative of difficult conditions to access and characterize contamination such as the 200-ZP-1 Operable Unit in the 200 West Area of Hanford. It is expected that DNAPL contamination, such as carbon tetrachloride in both the vadose zone and saturated zone, will be targeted for characterization. It expected that the full scale demonstration site selected shall include a minimal field area that is bound by surface dimensions of approximately 230 meters by 230 meters. The test area may contain existing wells varying in number from zero to twenty or more. Contamination concentration levels within the designated test area may vary for the targeted contaminant. Contamination may be found in the vadose zone, the saturated zone, or both.

The operational conditions are expected to fall within the following: required depth of operation ranges from surface to 110 meters; operation in both the vadose zone and saturated zone for both the access methodology and the methodology for determining contaminant spatial distribution and quantity in concentration levels; carbon tetrachloride contamination that may be present in the vadose zone (soil vapor, soil moisture, sorbed to solids, and residual) and the groundwater that is expected to range from minimum of 5 micrograms per liter to maximum of 10,000 micrograms per liter; carbon tetrachloride contamination may reside with other co-contaminants that may be radionuclides and other chemicals; subsurface settings that contain one or more conditions described as difficult-to-access such as beneath and around buildings and other man-made structures such as underground tanks and buried pipelines, layers of gravel, layers of caliche, and complex sediment facies such as interbeds of silt, sand, and gravel and/or beds containing structures such as fractures and clastic dikes.

The tests shall include operation of the prototype technology system for data collection, reduction, analyses, and interpretation. Field testing interval shall be the length of time specified in the approved Test plan. Not later than 48 hours from the start of the testing, initial test results from the data acquisition shall be provided in a "Quick Look" report that shall be in a format that is specified in the approved test plan. Initial test results shall be evaluated, as specified in the approved test plan, to determine if the prototype system is operating properly. All results from the testing, shall be provided at the time intervals and in a format that was specified in the approved test plan. Testing results shall also be provided in the Final Report submitted at the completion of Phase II.

The field test results shall be evaluated with respect to meeting the twofold objectives: 1) to access contamination located in both the vadose zone and saturated zone in difficult subsurface conditions and, 2) use in situ field measurement techniques to determine contaminant spatial distribution and quantity in concentration levels. The number of and degree to which the following performance criteria are met shall be evaluated:

- Ability to access and determine CCl₄ concentration levels in vadose zone (soil vapor, soil moisture, sorbed to solids, and residual) and groundwater in difficult subsurface conditions that include complex sediment facies, gravel, caliche, beneath man-made obstructions, and excessive depths (greater than 85 meters). Must be capable of measuring CCl₄ levels in groundwater ranging from maximum of 10,000 micrograms per liter CCl₄ to minimum of 5 micrograms per liter CCl₄. CCl₄ may occur in both aqueous phase and free phase (DNAPL).
- Capable of depth profile measurements ranging from the surface to depths of approximately 110 meters and capable of making measurements at multiple depths at discrete points on scale of several centimeters.
- Ability to provide real-time measurements and data results. A system with automatic measurements that is capable of remote downloading is preferred. Technologies that take advantage of existing extraction, injection, or monitoring wells, would be permitted.
- Ability to use measured concentration levels to produce spatial plots with the location and concentration of CCl₄ contamination both above and below the water table. Ability to report results in field coordinates and through use of visualization tools to plot isopleths of concentrations. Ability to map discrete lenses and pools of variable concentrations within the entirety of the plume. Methodology may involve integration of techniques, therefore integrated results are desired within 48 hours.
- Ability to measure time-variant changes of the combined plume configuration (spatial distribution) and the concentration levels, and provide results within 48 hours.
- Non-invasive or minimally invasive, eliminate or reduce Investigative Derived Waste (IDW), and prevent cross-contamination. For example, use of sensors in existing wells, use of geophysical or other remote sensing technologies, and methodologies involving cross-hole tests reduce or eliminate IDW. Reasonable measures should be made to ensure waste minimization.
- Robust in order to operate in remote, harsh field environment where access is limited and utilities are not readily available.
- Ability to provide technology performance and results which are verifiable with independent field data, controlled tests, or other acceptable means.

- Ability to minimize operational time including rapid site mobilization, completion of operations, and demobilization. The technology should operate reliably, with minimal scheduled or unscheduled outages for maintenance or repair.
- Demonstrated cost savings compared to baseline drilling and sampling methods, and able to operate within acceptable demonstration site Environmental, Safety, and Health requirements, and regulatory and stakeholders requirements.

<u>Independent Validation of Results</u>

The contractor shall complete an independent validation of test results that were obtained with the prototype technology system, using an acceptable plan that was provided in the approved test plan. This independent validation is intended to corroborate the operation of the prototype technology system, and to be a measure of its accuracy and ability to meet the performance criteria. For example, baseline sampling methods, control testing, or other acceptable means approved by DOE and the demonstration site could be used to verify field results. The contractor shall provide the resources necessary to complete this independent validation of test results. Results of this validation testing shall be provided as outlined in the approved test plan.

Site Restoration

The Contractor shall coordinate with DOE and the demonstration site representatives with regards to demobilization and site restoration, to ensure acceptable conditions upon completion of the field testing. The site shall be reclaimed to a condition as coordinated with and acceptable to the DOE demonstration site.

Task 10-- Reporting

<u>Draft Innovative Technology Summary Report (ITSR).</u>

The Contractor shall prepare a draft ITSR documenting the performance of the technology during the full-scale demonstration. In this report, the Contractor shall provide, at a minimum, a summary, technology description, performance, technology applicability and alternative, cost, regulatory and policy issues, and lessons learned. This report is due sixty (60) days prior to the expected completion of the contract. The Contracting Officer's Representative shall provide to the contractor a sample ITSR and ITSR preparation guidance for the ITSR.

Final Report.

The contractor shall prepare and present a briefing of Phase II results at DOE/NETL or another site selected by DOE. This presentation shall take place not less than 45 days before the expiration of the Phase II contract. The contractor shall prepare for review and comments, a draft Final Report on the Phase II contract activities. This report shall follow the guidelines set forth in the contract and shall include, but not be limited to: prototype system design, constructing, and control testing; required project test plans and other documentation for the demonstration site; description of and results from

Phase I and Phase II testing; results from independent validation; and cost estimates of technology and cost benefits of technology compared to baselines and alternative technologies. After review and comment by the DOE and DOE selected representatives, the contractor shall revise the report and submit to DOE.

Annual Industry Programs Conference Attendance

The Contractor shall attend and prepare project status for presentation at the Annual Industry Programs Contractor Review Meeting at DOE/NETL.

Subsurface Contaminant Focus Area Program Review Attendance

The Contractor shall attend and prepare project status for presentation at the annual Subsurface Contaminant Focus Area Program Review at a location to be designated.

C. DELIVERABLES AS A RESULT OF THE STATEMENT OF WORK

The Topical and Final reports shall be submitted in accordance with the attached "Reporting Requirements Checklist" and the instructions accompanying the checklist. In addition, the Contractor shall submit the following:

- 1. Documentation for coordinating and planning, as described in Task 1.
- 2. Base maps of test sites, as described in Task 2.
- 3. Prototype design, as described in Task 3.
- 4. Plan for and results of control testing, as described in Task 3.
- 5. Test plan for Phase I field tests, as described in Task 4.
- 6. Quick-Look Report and other data results including validation results, as described in Task 5.
- 7. Topical Report, as described in Task 6.
- 8. Documentation for coordinating and planning, as described Task 7.
- 9. Base maps of full scale demonstration sites, as described in Task 7.
- 10. Test plan for Phase II full scale demonstration site, as described in Task 8.
- 11. Quick-Look Report and other data results including validation results, as described in Task 9.
- 12. Draft Innovative Technology Summary Report, as described in Task 10.
- 13. Final Report, as described in Task 10.
- 14. Prototype technology system including all hardware, software, and support documentation.

D. <u>BRIEFINGS/TECHNICAL PRESENTATIONS</u>

- 1. Kickoff briefing with DOE/NETL, the selected demonstration site, and other DOE-selected representatives at site to be selected by DOE.
- 2. Briefings at DOE/NETL or other site selected by DOE upon completion of : (1)Phase I field tests; and (2) Phase II full-scale demonstration.
- 3. Annual presentations at NETL Annual Industry Programs Contractor Review Meeting.
- 4. Annual presentations at the Subsurface Contamination Focus Area Midyear Review Meeting.

ATTACHMENT B REPORTING REQUIREMENTS CHECKLIST

REPORTING REQUIREMENTS CHECKLIST

1.	AWARDEE:				2.	IDENTIFICATION NUMBER: DE-	RP26-01NT4	0774		
3.	REPORT SUBMISSION ADDRESS:	The request	ted quantity	y of all requi	red r	report deliverables shall be submitted to th	ne following add	lress:		
			U.S. IONAL EN	DEPARTMI ERGY TEC P.O. BC	ENT HNO DX 1	ONTROL BLDG. 921 OF ENERGY DLOGY LABORATORY 0940 15236-0940				
4.	PLANNING AND REPORTING F	REQUIREM	ENTS:							
		FORM NO.	FREQ.	NUMBER OF COPIES			FORM NO.	FREQ.	NUMBER OF COPIES	
A.	GENERAL MANAGEMENT				E.	TECHNICAL (One paper copy and one PDF electronic file copy)				
*	Management PlanStatus ReportSummary Report	None None 1332.2	O M	3 3		☐ Technical Progress Report ■ Final Report	None			
В.	SCHEDULE/LABOR/COST	1332.3	O,C,PY	3		■ Draft for Review ■ Final for Approval	None None	FD FC	6 6	
* * * * D.	 ■ Milestone Schedule/Plan □ Labor Plan ■ Cost Plan ■ Milestone Schedule/Status Report □ Labor Management Report ■ Cost Management Report ■ EXCEPTION □ Conference Record ■ Hot Line Report ■ Journal Articles/Conference Papers and Proceedings ENVIRONMENTAL ■ Hazardous Substance Plan ■ Hazardous Waste Report □ Environmental Compliance Plan □ Environmental Monitoring Plan □ Environmental Status Report 	1332.3 1332.4 1332.7 1332.3 1332.8 1332.9 None None None None None	O,C,PY O,C,PY M A A FC	3 3 3 3 2 2 2	F.	■ Topical Report PROPERTY □ Report of Contractor's Property Management System □ Annual Report of Property in the Custody of Contractors □ High Risk Property Report □ Report of Physical Inventory of Capital Equipment □ Report of Physical Inventory of Sensitive Items ■ Report of Termination or Completion Inventory OTHER □ Key Personnel Staffing Report ■ Subcontracting Report ■ Subcontracting Report □ Software ■ Other See Text in SOW	None None F 580.1-8 F580.1-25 None None SF-1428 and SF-120 and F 580.1-7 None SF-294 SF-295 None	FD,FC FC SS YS A	3 2 2 2	
5.	FREQUENCY CODES AND DUE DATES:					- Onici <u>See Text III SOW</u>				
Calendar Days Due After Event						Definition O				
	Definition Calendar Days Due After Event A As Required (See attached text for applicability) 0 C Contract Change 15 FC Final - End of Effort 0 FD Final Technical - Draft Version -60 M Monthly 25 Property Reports P Property Management System - within 6 months of award date YP Yearly property - due 10/15 for period ending 9/30					O Once After Award Q Quarterly (End of Calendar Quarter) S Semiannual (End of project year and project Y Yearly (End of project year) PY - Yearly plan for following federal fiscal year Other SS Subcontracting Report - Semi-annual due 4/ 3/31 and 9/30 respy YSSummary Subcontracting Report - Annually,	half-year)/30 and 10/30 for pectively	eriod e	<u>Du</u>	

The forms identified in the checklist are available at http://www.netl.doe.gov/business/forms/forms.html. Alternate formats are acceptable provided the contents remain consistent with the form. All $\underline{\text{technical reports}}$ submitted to the DOE $\underline{\text{must}}$ be accompanied by a completed and signed $\underline{\text{NETL F 510.1-5}}$, addressing patent information.

B.1 GENERAL INSTRUCTIONS FOR THE PREPARATION AND SUBMISSION OF REPORTS (MAR 1999)

The contractor shall prepare and submit (postage prepaid) the plans and reports indicated on the "Reporting Requirements Checklist" to the addressee identified on the checklist. The level of detail the contractor provides in the plans and reports shall be commensurate with the scope and complexity of the effort and shall be as delineated in the guidelines and instructions contained herein. The prime contractor shall be responsible for acquiring data from any subcontractors to ensure that data submitted are compatible with the data elements which prime contractors are required to submit to DOE.

B.2 MANAGEMENT PLAN (JAN 2000)

The Management Plan describes the contractor's approach to performing the effort and producing the products identified in the contractual agreement, and the technical, schedule, cost, and financial management control systems to be used to manage performance.

The outline for the Management Plan and a description of the contents follows:

EXECUTIVE SUMMARY

The executive summary gives DOE/NETL's management a brief, comprehensive overview of the most important aspects of the management plan.

BACKGROUND

This is a discussion of the background of the project, including the scientific, sociological, legislative, and historical factors, that demonstrates the contractor's understanding of the problems, both technical and management, associated with the project.

SCOPE OF THE PROJECT

This section gives a brief overview of the project. It should include:

general description of project objectives; task titles and short descriptions; participants.

WORK BREAKDOWN STRUCTURE (WBS)

The scope and complexity of the contractual agreement influence the number of levels required. Each descending level represents an increasingly detailed definition of the work

elements. Level 1 is the goal or objective of the contractual agreement in its entirety. Level 2 consists of the major work products necessary for achieving the goals of the contractual agreement. Level 3 outlines the major element segments (subsystems) necessary for completing Level 2 elements. Work breakdown structure elements are identified by name and number from a progressive, alphanumeric system. For example:

Example:

WBS Level 1: The overview should describe t technical approach.	he philosophy underlying the selected				
WBS Levels 2 and 3:					
WBS ELEMENT X.X:	(TITLE)				
OBJECTIVE: State the objective of the task in	a concise manner.				
BACKGROUND (Not required for Construc	tion Tasks):				
With respect to the project objective, what i	s the current state of understanding?				
Given the state-of-the-art, what are the outsing order to make progress?	tanding issues which must be resolved				
TECHNICAL APPROACH (Not required for detail the manner in which the various issues will be of the work which should be considered and a appropriate):	be resolved. The following are aspects				
What experiments will be performed and wh	ny?				
What materials will be used?					
What are the experimental conditions?					
What analytical techniques will be employed	1?				
What will be the approach to modeling?					

In answering these questions, you should consider how the various tasks relate to one another and to other relevant ongoing work. Task outputs which feed into other tasks (and vice-versa) should be clearly delineated.

DELIVERABLES (**Not required for Construction Tasks**): Describe specifically the results of the task. These should include:

raw and reduced data and method of presentation;

brief description of models to be developed;

other key results as appropriate.

SUPPORT SYSTEMS AND CONTROLS

In this section, the management, technical, and administrative system that will be used to control and execute the project will be described. Examples of the systems include: systems and engineering analysis, quality assurance, environmental, safety and health, legal support, ADP support, and accounting support.

B.3 STATUS REPORT (MAR 1999)

The Status Report is the contractor's project manager brief narrative assessment (by WBS) of the work actually performed and the overall status of the various tasks.

The Status Report provides a concise narrative assessment of the status of the work being performed under the contractual agreement. DOE management uses the report to monitor status and to provide early recognition of potential problem areas. The report highlights changes to objectives, changes to technical approach, relationship to previously planned activities, task variances from baselines in excess of stipulated thresholds by WBS reporting element, causative factors, and actions taken or proposed to resolve them, list of presentations and publications, as well as factors with potential for causing significant variances in the future. Task progress of major accomplishments for each task in bullet form may also be highlighted. The report identifies open items requiring action by DOE or the contractor. The report also provides a summary assessment of the current situation, including forecast of the near future and the expected impact on project accomplishment.

B.4 SUMMARY REPORT (DOE F 1332.2) (MAR 1999)

The Summary Report provides a concise, top-level summary of schedule, labor, and cost performance against the baseline plans. Most data are presented graphically. The format permits rapid visual comparison of schedule, labor, and cost data. There are three segments: a cost status graph, a labor status graph, and a milestone chart. The cost and labor graphs are cumulative presentations. Planned and actual numerical data presented are for the period specified. Labor and cost variances are shown on a monthly and cumulative basis.

B.5 MILESTONE SCHEDULE/PLAN (DOE F 1332.3) (MAR 1999)

The Milestone Schedule Plan documents the planned or baseline project schedule in the standard DOE format (DOE F 1332.3). It includes a summary sheet showing all tasks/elements identified in the Work Breakdown Structure on a single form, and, for complex efforts, a separate sheet for each task/element which gives more detail. The planned events and milestones for each task/element are included. The standard symbols and charting conventions described on the reverse side of the form are used. The summary sheet includes a line labeled "administration," and denotes events such as subcontract awards, project reviews, etc. An associated milestone log (DOE F 4600.3A) provides a narrative description of events and anticipated dates of initiation/completion.

B.6 LABOR PLAN (DOE F 1332.4) (MAR 1999)

The Labor Plan establishes the planned utilization of labor for the term of the contract necessary to complete the planned work. For projects being managed at the fourth level of the WBS or greater, DOE F 1332.4, Labor Plan, is used. This information must also be reported by WBS element.

B.7 COST PLAN (DOE F 1332.7) (MAR 1999)

The Cost Plan establishes the plan for accruing total costs by WBS element for the life of the contractual agreement. The time-phased baseline establishes the basis for the measurement of actual cost accumulation and provides basic information for updating and forecasting budget requirements. The Cost Plan itemizes accrued costs by WBS element for prior fiscal years, the current fiscal year by month, and future fiscal years until completion of the contractual agreement. For projects being managed to the fourth WBS level, additional forms show cost detail for each task individually.

B.8 MILESTONE SCHEDULE/STATUS REPORT (DOE F 1332.3) (MAR 1999)

The Milestone Schedule/Status Report is used for reporting schedule status and shows the completion status of the activities and events at the same level of detail as shown on the Milestone Schedule Plan. The report also shows changes to the planned schedule. Like the Milestone Schedule/Plan, information is reported by WBS element. DOE Form 1332.3 is used for reporting schedule status.

B.9 LABOR MANAGEMENT REPORT (DOE F 1332.8) (MAR 1999)

This is a periodic report of the status of the labor resources utilization to be compared with the Labor Plan. Labor information is reported by WBS element.

B.10 COST MANAGEMENT REPORT (DOE F 1332.9) (MAR 1999)

This is a periodic report that shows the cost status of the contract and is compared with the Cost Plan. Information is reported by WBS element.

B.11 CONFERENCE RECORD (MAR 1999)

The "Conference Record" documents for the DOE Contracting Officer's Representative (COR), DOE Contracting Officer, and the contractor an understanding of significant decisions, direction or redirection, or required actions resulting from meetings with DOE representatives. It is required for any meeting, conference, or phone conversation in which a decision is made that may change the schedule, labor, cost, or technical aspects of the contractual agreement or the approved baseline plans. The report shall contain the following information as applicable:

- 1. Report title ("Conference Record"), number, and the date prepared.
- 2. Contract title and number, and the contractor's name and address.
- 3 Date of meeting or telephone conversation, with a list of those involved and their titles.
- 4. Subject(s) discussed, decisions reached, and directions given.
- 5. Variances from previous directions and conclusions.
- 6. Required actions.
- 7. Distribution.
- 8. Signature of preparer.

B.12 HOT LINE REPORT (JAN 2000)

The "Hot Line" Report may be used to report a major breakthrough in research, development, or design; an event causing a significant schedule slippage or cost overrun; an environmental, safety and health violation; achievement of or failure to achieve an important technical objective; or any requirement for quickly documented direction or redirection. The report shall be submitted by the most rapid means available, usually electronic, and should confirm telephone conversations with DOE representatives. Identification as a "Hot Line Report" serves notice at each link in the delivery chain that expedition in handling is required. Unless otherwise agreed by the parties involved, DOE is expected to take action and respond in a similarly timely manner. The report should include:

- 1. Contractor's name and address;
- 2. Contract title and number;
- 3. Date:
- 4. Brief statement of problem or event;
- 5. Anticipated impacts; and
- 6. Corrective action taken or recommended.

Hot line reports shall document the incidents listed below:

- 1. Any single fatality or injuries requiring hospitalization of five or more individuals is to be immediately reported.
- 2. Any significant environmental permit violation is to be reported as soon as possible, but within 24 hours of the discovery of the incident.
- 3. Other incidents that have the potential for high visibility in the media are to be reported as quickly as possible, but within 24 hours following discovery.
- 4. Any failure resulting in damage to Government-owned equipment in excess of \$50,000 is to be reported as quickly as possible, but within 24 hours of the discovery of the failure.
- 5. Any unplanned event which is anticipated to cause a schedule slippage or cost increase significant to the project is to be reported within 24 hours.
- 6. Any verbal or written <u>Notice of Violation</u> of any Environmental, Safety, and Health statutes arising from the performance of this contract is to be immediately reported.
- 7. Any accidental spill or release which is in violation of any Environmental, Safety, and Health statutes arising from the performance of this contract is to be immediately reported, but within 24 hours of the discovery of the accident.
- 8. Any incident which causes a significant process or hazard control system failure, or is indicative of one which may lead to any of the above defined incidents, is to be reported as soon as possible, but within 5 days of discovery.

The requirement to submit Hot Line Reports for the incidents identified in 1, 2, 3, 6, or 7 is for the sole purpose of enabling DOE officials to respond to questions relating to such events from the media and other public.

When an incident is reported in accordance with 4, 5, 6, 7, or 8, the contractor shall conduct an investigation of its cause and make an assessment of the adequacy of resultant action. A written report is required no later than ten (10) calendar days following the incident and shall include an analysis of the pertinent facts regarding the cause, and a schedule of the remedial events and time periods necessary to correct the action.

When an event results in the need to issue a written or verbal statement to the local media, the statement is to be cleared first; if possible, and coordinated with NETL Management and Communications Division, the Contracting Officer Representative (COR) and the Contracting Officer.

B.13 JOURNAL ARTICLES, CONFERENCE PAPERS AND PROCEEDINGS GENERATED BY LARGE BUSINESSES FOR DOE REVIEW (SEPT 2000)

The Contractor shall submit to DOE for review and approval all documents generated by the Contractor, or any subcontractor, which communicate the results of scientific or technical work supported by DOE under this award, whether or not specifically identified in the award, prior to submission for publication, announcement, or presentation. Such documents include journal articles, conference papers and proceedings, etc. Each such document shall be accompanied by a properly completed NETL Form 510.1-5, "Request for Patent Clearance for Release of Contracted Research Documents."

The Contractor shall simultaneously submit a draft version of the document to the DOE COR and the DOE Patent Counsel Office prior to the publication, presentation, or announcement. The document submitted to the DOE Patent Counsel shall be accompanied by a completed NETL Form 510.1-5. The DOE COR and DOE Patent Counsel shall review the draft version of the document and notify the Contractor of approval or recommended changes. The approved final version shall be submitted to the NETL AAD Document Control Coordinator.

The following information shall be provided for conference papers and proceedings, etc.

- -- Name of conference
- -- Location of conference (city, state, and country)
- -- Date of conference (month/day/year)
- -- Conference sponsor

B.14 JOURNAL ARTICLES, CONFERENCE PAPERS AND PROCEEDINGS GENERATED BY A SMALL BUSINESS OR NONPROFIT ORGANIZATION FOR DOE REVIEW (SEPT 2000)

The Contractor shall submit to DOE for review and approval all documents generated by the Contractor, or any subcontractor, which communicate the results of scientific or technical work

supported by DOE under this award, whether or not specifically identified in the award, prior to submission for publication, announcement, or presentation. Such documents include journal articles, conference papers and proceedings, etc. Each such document shall be accompanied by a properly completed NETL Form 510.1-5, "Request for Patent Clearance for Release of Contracted Research Documents."

The Contractor shall submit a draft version of the document to the COR prior to the publication, presentation, or announcement. The COR shall review the draft version of the document and notify the Contractor of approval or recommended changes. The final version, along with a completed NETL Form 510.1-5, shall be submitted to the NETL AAD Document Control Coordinator.

The following information shall be provided for conference papers and proceedings, etc.

- -- Name of conference
- -- Location of conference (city, state, and country)
- -- Date of conference (month/day/year)
- -- Conference sponsor

B.15 JOURNAL ARTICLES, CONFERENCE PAPERS AND PROCEEDINGS GENERATED BY A UNIVERSITY FOR DOE REVIEW (SEPT 2000)

The Contractor shall submit to DOE for review and comment all documents generated by the Contractor, or any subcontractor, which communicate the results of scientific or technical work supported by DOE under this award, whether or not specifically identified in the award, prior to submission for publication, announcement, or presentation. Such documents include journal articles, conference papers and proceedings, etc. Each such document shall be accompanied by a properly completed NETL Form 510.1-5, "Request for Patent Clearance for Release of Contracted Research Documents."

The Contractor shall submit a draft version of the document to the COR prior to the publication, presentation, or announcement. The COR shall review the draft version of the document and notify the Contractor of recommended changes. The final version, along with a completed NETL Form 510.1-5, shall be submitted to the NETL AAD Document Control Coordinator.

The following information shall be provided for conference papers and proceedings, etc.

- -- Name of conference
- -- Location of conference (city, state, and country)
- -- Date of conference (month/day/year)
- -- Conference sponsor

B.16 ENVIRONMENTAL (OCT 2000)

In response, in part, to the requirements of the National Environmental Policy Act of 1969 (NEPA) and other related environmental statutes, the National Energy Technology Laboratory (NETL) requires the submission of various documents that assess the environmental aspects and projected impacts of all of its proposed actions. These documents may include the following: (1) Hazardous Substance Plan; (2) Hazardous Waste Report; (3) Environmental Compliance Plan; (4) Environmental Monitoring Plan; and (5) Environmental Status Reports.

The environmental information provided in these documents will enable NETL to fulfill its responsibilities under NEPA (additional information about the requirements of the National Environmental Policy Act can be found in the DOE NEPA Compliance Guide and 40 CFR 1021) and to monitor the proposer's compliance with other environmental regulations. The implementation of any task associated with a proposed action will be dependent upon DOE submitting and acquiring approval of necessary NEPA documentation. Therefore, to minimize the risk of project delays, it is imperative that these reports be submitted in a timely manner.

The information contained herein specifies the basic environmental requirements for this procurement action, but it is not to be interpreted as containing all necessary information for any given project. Likewise, certain aspects of the requirements may not be applicable. Accordingly, the level of information provided should be sufficient for DOE to assess the environmental implications of the proposed action.

B.17 HAZARDOUS SUBSTANCE PLAN (MAR 1999)

The Contractor shall submit a Hazardous Substance Plan not later than thirty (30) days after initial contract award. The Plan shall specifically identify each Hazardous Substance (as defined under 40 CFR 261, Subpart D, entitled <u>Lists of Hazardous Wastes</u>) anticipated to be purchased, utilized or generated in the performance of this contract. For each such Hazardous Substance identified, the Plan shall specifically provide the following information:

Description of Substance/Chemical

EPA Hazardous Waste Number

EPA Hazard Code

Anticipated Quantity to be purchased, utilized or generated

Anticipated Hazardous Waste Transporter

Anticipated Hazardous Waste Disposal Facility Contractor and Location (City/Municipality, State)

Anticipated Treatment Method

B.18 HAZARDOUS WASTE REPORT (MAR 1999)

The Contractor shall submit a Hazardous Waste Report at the completion of contract performance. The Report shall specifically identify each Hazardous Waste (as defined under 40 CFR 261, Subpart D, entitled <u>Lists of Hazardous Wastes</u>) actually utilized, or generated in the performance of this contract. For each such Hazardous Waste identified, the Report shall specifically provide the following information:

Description of Substance/Chemical EPA Hazardous Waste Number

EPA Hazard Code

Actual Quantity Disposed

Actual Hazardous Waste Transporter

Actual Hazardous Waste Disposal Facility Contractor and Location (City/Municipality, State)

Actual Disposal Date

Actual Treatment Method

The Hazardous Waste Report is intended as a final reconciliation of <u>anticipated</u> versus <u>actual</u> Hazardous Substances purchased, utilized, or generated in the performance of this contract.

B.19 ENVIRONMENTAL COMPLIANCE PLAN (JAN 2000)

The Environmental Compliance Plan (ECP) shall be submitted within thirty (30) days of contract award and should outline an approach to implementing an environmental monitoring and reporting strategy. This strategy should include plans for submitting a Quality Assurance/Quality Control Plan and Pollution Prevention Plan (if an ECP is required, the format of the QA/QC Plan and Pollution Prevention Act will be determined in conjunction with the NETL environmental staff), conducting environmental monitoring of the proposed action and submitting Environmental Status Reports. The ECP should also address any concerns and/or deviations associated with the reporting and monitoring documents.

Suggested Format for Environmental Compliance Plan (ECP):

- I. SUMMARY OF PROPOSED PROJECT
- II. FEDERAL REGULATORY COMPLIANCE (Discuss how each of the following will be complied with, if applicable.)
 - A. National Historic Preservation Act
 - B. Endangered Species Act

- C. Fish and Wildlife Coordination Act
- D. Floodplain/Wetlands Regulations
- E. Coastal Zone Management Act
- F. Farmland Protection Policy Act
- G. American Indian Religious Freedom Act
- H. Wild and Scenic Rivers Act
- I. Resource Conservation & Recovery Act
- J. Comprehensive Environmental Response, Compensation and Liability Act
- K. Clean Air Act
- L. Clean Water Act
- M. Pollution Prevention Act
- III. STATE AND LOCAL REGULATORY COMPLIANCE (Discuss how any state and local regulations will be complied with.)

B.20 ENVIRONMENTAL MONITORING PLAN (MAR 1999)

IF DOE's analysis of the potential environmental impacts of the proposed action identifies a need for environmental monitoring, the Contractor will also submit a draft Environmental Monitoring Plan (EMP) within thirty (30) days of contract award. After consultation with DOE, the draft EMP will be revised, as necessary, and a final EMP will be prepared. The EMP may be revised as the project dictates.

The EMP should evaluate air, land, and water resources, and waste production, using three specific types of monitoring:

- A. Compliance Monitoring,
- B. Unregulated Pollutant Monitoring, and, if necessary,
- C. NEPA-related Monitoring.

Compliance monitoring, i.e., environmental and health monitoring required by Federal, State, and local regulatory agencies, should detail the location, frequency, duration, and substances being monitored. All necessary applications, permits, and licenses should be identified.

Unregulated pollutants, both the amount and type of each, should be monitored. This includes those pollutants (a) not currently regulated by State or Federal laws but for which new regulations are expected in the near future; (b) which may cause environmental or health concerns based on hazardous/toxic compound lists; and (c) which are expected in discharge streams based on test data or process chemistry.

Finally, NEPA-related monitoring should be implemented as necessary. It should identify and/or confirm the impacts of the substances produced and performance of the specific technologies as predicted in the NEPA document. It should also include reporting on any mitigation action identified in the Finding of No Significant Impact or Record of Decision as a condition of approval of the proposed action (reported annually).

B.21 ENVIRONMENTAL STATUS REPORT (MAR 1999)

After approval of the comprehensive EMP, and as deemed necessary by the DOE Project Manager, information from environmental monitoring should be submitted in the form of Environmental Status Reports (ESRs). The necessity of these reports will depend on the size and nature of the project; they will be required quarterly.

The data reported in the ESRs will ensure that project impacts (a) do not violate applicable environmental regulations and (b) are not detrimental to human health or the environment. The information will also provide a database that can be utilized to mitigate environmental problems associated with commercializing any proposed technologies.

Suggested Format for Environmental Status Reports

I. SUMMARY OF MONITORING PERFORMED (Compliance and Supplemental Monitoring)

A. MONITORING PARAMETERS

- 1. Location
- 2. Stage of Project (e.g., preconstruction, operational, etc.)
- 3. Source to be Monitored (e.g., stack emissions)
- 4. Method of Monitoring

B. DATA ANALYSIS

- 1. Identification/characterization of emissions, effluents, etc. and their concentration
- 2. Identification of problem areas/non-compliance
- 3. Suggestions for modifications/changes to the system
- 4. Recommendations to revise Monitoring Plan

II. PERMIT COMPLIANCE STATUS

- A. Attach copies of compliance reports, analyses, correspondence between the Contractor and the appropriate regulatory agencies.
- B. Attach copies of all manifests, shipping documents, etc. pertaining to the disposal of wastes generated from the project.

B.22 TECHNICAL REPORTS (SEPT 2000)

CAUTION: Technical reports SHALL NOT include Limited Rights Data (such as restricted, proprietary or business sensitive information). Limited Rights Data shall be submitted in a separate appendix to the technical report. This appendix SHALL NOT be submitted in an electronic format but rather submitted in ONE ORIGINAL AND THREE (3) PAPER COPIES along with the paper version of the sanitized technical report deliverable. The appendix shall be referenced in, but not incorporated into , the sanitized technical report deliverable under the contract. In accordance with FAR 52.227-14, Rights in Data-General, the appendix must be appropriately marked and identified.

Further, if this award authorizes the awardee under the provisions of The Energy Policy Act of 1992 to request protection from public disclosure for a limited period of time of certain information developed under this award, technical reports SHALL NOT contain such Protected EPAct Information. Such information shall be submitted in a separate appendix to the technical report that is suitable for release after the agreed upon period of protection from public disclosure has expired. The appendix shall be referenced in, but not incorporated into , the sanitized technical report deliverable under the contract. In accordance with the clause titled "Obligations as to Protected Energy Policy Act (EPAct) Information," the appendix must be appropriately marked and identified.

All TECHNICAL REPORTS submitted to the DOE MUST be accompanied by a completed and signed NETL F 510.1-5, addressing potentially patentable information.

B.23 TECHNICAL PROGRESS REPORT (ANNUAL, QUARTERLY, AND SEMI-ANNUAL) (MAR 1999)

The body of the report should contain a full account of progress, problems encountered, plans for the next reporting period, and an assessment of the prospects for future progress.

The Technical Progress Report should include sufficient detail to allow the work to be reproduced by others. Results and reduced data shall be presented together with a discussion

of the relevance of the findings. When experimental systems and/or procedures are being utilized for the first time, they shall be described in detail. This description shall contain detailed information on equipment and procedures utilized, as well as providing a rationale for their use. All data reduction and transformation methods shall be fully documented. For every fourth calendar quarter for quarterly reports or every second half year for semi-annual reports, the report should be expanded to provide for detailed information on the results of the past year, problems encountered, significant accomplishments, listing of publications, presentations, and approaches to be taken the following year.

Informational items in technical progress reports shall include:

Experimental Apparatus -- A comprehensive description, including dimensioned drawings or sketches, of the apparatus and associated diagnostic measurement equipment employed to perform the experimental research.

Experimental and Operating Data -- All experimental data acquired during the course of research including detailed characterization of the sample materials subjected to experimentation.

Data Reduction -- A complete description of the methods employed to transform raw measured data into a form usable for interpretation along with any assumptions or restrictions inherent in the method and the resultant reduced data.

Hypothesis and Conclusions -- Logic for drawing conclusions or developing hypotheses shall be clearly stated along with applicable assumptions or restrictions.

B.24 FINAL TECHNICAL REPORT (MAR 1999)

The Final Report shall document and summarize all work performed during the contract period in a comprehensive manner. It shall also present findings and/or conclusions produced as a consequence of this work. This report shall not merely be a compilation of information contained in subsequent quarterly, or other technical reports, but shall present that information in an integrated fashion, and shall be augmented with findings and conclusions drawn from the research as a whole.

The contractor shall deliver a draft copy of the final report sixty (60) days before the completion of the period of performance. The Government shall be allowed thirty (30) days to review the

draft copy and to notify the contractor, in writing, of approval or recommended changes. If the Government does not approve or recommend changes within thirty (30) days of receipt of the draft copy, the report shall be deemed approved. The approved final report is due on the contract completion date.

B.25 TOPICAL REPORT (MAR 1999)

These reports usually provide a comprehensive statement of the technical results of the work performed for a specific task or subtask of the Statement of Work (SOW), or detail significant new scientific or technical advances. If required, DOE shall review and approve the report outline prior to submission of the report.

B.26 GUIDELINES FOR ORGANIZATION OF TECHNICAL REPORTS (DEC 1999)

The following sections should be included (as appropriate) in technical reports in the sequence shown. Any section denoted by an asterisk is required in all technical reports.

TITLE PAGE* - The Title Page of the report itself must contain the following information in the following sequence:

Report Title

Type of Report (Quarterly, Semi-Annual, Annual, Topical, Final)

Reporting Period Start Date

Reporting Period End Date

Principal Author(s)

Date Report was Issued (Month [spelled out] and Year [4 digits])

DOE Award Number (e.g., DE-AC26-99NT12345) and if appropriate, task number Name and Address of Submitting Organization (This section should also contain the name and address of significant contractors or subcontractors who participated in the production of the report.)

DISCLAIMER* -- The Disclaimer must follow the title page, and must contain the following paragraph:

"This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof."

ABSTRACT* - should be a brief, concise summary of the report.

TABLE OF CONTENTS*

LIST(S) OF GRAPHICAL MATERIALS

INTRODUCTION

EXECUTIVE SUMMARY - this should be a well organized summary that highlights the important accomplishments of the research during the reporting period. It should be no less than one page and no more than two pages in length, and should be single spaced. This summary must be more comprehensive than the traditional "abstract."

EXPERIMENTAL* - this should describe, or reference all experimental methods being used for the research. It should also provide detail about materials and equipment being used. Standard methods can be referenced to the appropriate literature, where details can be obtained. Equipment should be described only if it is not standard, or if information is not available thru the literature or other reference publications.

RESULTS AND DISCUSSION* - It is extremely important that this section includes enough relevant data, especially statistical data, to allow the project manager to justify the conclusions. With the relevant data, explain how the data was interpreted and how it relates to the original purpose of the research. Be concise in the discussion on how this research effort solved or contributed to solving the original problem.

CONCLUSION* - The conclusion should not simply reiterate what was already included in the "Results and Discussion" section. It should, however, summarize what has already been presented, and include any logical implications of how the successes are relevant to technology development in the future. This is extremely important, since "relevancy" continues to be a criteria of the program.

REFERENCES*
BIBLIOGRAPHY
LIST OF ACRONYMS AND ABBREVIATIONS
APPENDICES (IF NECESSARY)

Company Names and Logos -- Except as indicated above, company names, logos, or similar material should not be incorporated into reports.

Copyrighted Material -- Copyrighted material should not be submitted as part of a report unless written authorization to use such material is received from the copyright owner and is submitted to DOE with the report.

Measurement Units -- All reports to be delivered under this instrument shall use the SI Metric System of Units as the primary units of measure. When reporting units in all reports, primary SI units shall be followed by their U.S. Customary Equivalents in parentheses ().

The contractor shall insert the text of this clause, including this paragraph, in all subcontracts under this award.

Note: SI is an abbreviation for "Le Systeme International d'Unites."

B.27 ELECTRONIC MEDIA STANDARD FOR PREPARATION OF TECHNICAL REPORTS (DEC 1999)

FILE FORMAT

Production of high-quality, electronic documents is dependent on the quality of the input that is provided. Thus, the contractor shall submit one good quality paper copy using either permanent or alkaline paper plus an electronic version of each technical report.

ELECTRONIC REPORTS SHALL BE SUBMITTED IN THE ADOBE ACROBAT PORTABLE DOCUMENT FORMAT (PDF). ELECTRONIC REPORTS SUBMITTED IN A FORMAT OTHER THAN ADOBE WILL BE RETURNED AND THE REPORT CONSIDERED DELINQUENT.

Each report shall be an integrated file that contains all text, tables, diagrams, photographs, schematics, graphs, and charts.

SUBMISSION FORMAT

The electronic file(s) shall be submitted via diskette or CD-ROM. Diskettes or CD-ROMs must be labeled as follows:

DOE Award Number
Type/Frequency of Report(s)
Reporting Period (if applicable)
Name of submitting organization
Name, phone number and fax number of preparer

Diskettes -- Diskettes must be 3.5" double-sided, high-density (1.4 M Byte capacity). If file compression software is used to transmit a PDF file spanning more than one diskette, PKZIP from PKWare, Inc., is the required compression software. State the number of diskettes in the set (e.g., 1/3)

CD-ROM -- The electronic file(s) may be submitted on an ISO9660-format CD-ROM.

FILE NAMING

In naming the electronic file, the contractor shall use the standard eight-character naming convention for the main file name, and the three character extension applicable to the software use, e.g., .pdf for Adobe.

For the main file name, the first five characters are the last five digits from the award number; e.g., for Award Number DE-AC26-97NT12345, the first five characters are 12345.

The next character represents the technical report and will always be designated as "R".

The remaining two characters indicate the chronological number of the particular type of report; e.g., Quarterly Technical Progress Reports for a 5-year award are numbered R01 through R20. Thus, the main file name for the sixth Quarterly Technical Progress Report under Award No. DE-AC26-99NT12345 would be 12345R06.PDF. If monthly, quarterly, annual, and a final technical report are required, the numbers would run from R01 through R86 (60 monthly reports, 20 quarterly reports, 5 annual reports, and 1 final report).

B.28 PROPERTY REPORTS (JAN 2000)

The NETL Property Handbook entitled "Management of Government Property in the Possession of Contractors," contains forms, instructions, and suggested formats for submission of property reports. This handbook can be found at http://www.netl.doe.gov/business/index.html.

B.29 REPORT OF CONTRACTOR'S PROPERTY MANAGEMENT SYSTEM (JAN 2000)

This report shall consist of the Contractor's comprehensive written property management system and is due within 6 months of the contract award date. It shall address the Contractor's written system for controlling, protecting, preserving and maintaining all Government property. The report format shall be consistent with Contractor's system and shall as a minimum enable comprehensive evaluation by the Government. (If not provided in your local format, see sample in the NETL Property Handbook).

B.30 ANNUAL REPORT OF PROPERTY IN THE CUSTODY OF CONTRACTORS (NETL F 580.1-8) (JAN 2000)

This report includes ALL Government-owned Contractor-acquired and Government-furnished property and materials for which the contractor is accountable to the Government. This report shall also include Government Property at subcontractor's plants and alternate locations. This report is submitted on NETL F 580.1-8 for the period ending September 30 and is due by October 15.

B.31 HIGH RISK PROPERTY REPORT (NETL F 580.1-25) (SEPT 2000)

Some property, because of its peculiar nature, its potential impact on public health and safety, on the environment, on security interests, or on proliferation concerns, must be handled, controlled, cleared and disposed of in other than the standard manner. High-risk property includes property which is: 1) nuclear-related; 2) proliferation-sensitive or export controlled; 3) chemically, biologically, or radiologically contaminated; 4) national security/military interests; and 5) hazardous materials and wastes. Further definitions of high-risk property can be found at http://www.pr.doe.gov/ppl.html. This report is required by the DOE for the control (acquisition, management and disposal) of high risk property to ensure that such disposition does not adversely affect public safety and/or the environment, national security, or nuclear nonproliferation objectives of the United States. This report shall be submitted for the period ending September 30 and is due by October 15 of each year.

B.32 REPORT OF PHYSICAL INVENTORY OF CAPITAL EQUIPMENT (JAN 2000)

Capital equipment is any piece of personal property, equipment, or furniture with a useful service life of 2 years or more and is acquired at a unit cost of \$25,000 or more. The suggested format for this report can be found in the NETL Property Handbook at http://www.netl.doe.gov/business/index.html. This report is due 2 years from award date and every 2 years thereafter.

B.33 REPORT OF PHYSICAL INVENTORY OF SENSITIVE ITEMS (JAN 2000)

Sensitive items are identified as small calculators, tape recorders, radios, photographic and projection equipment, typewriters and other office machines, firearms, survey instruments, binoculars, power tools, personal computers, printers, external modems, or other equipment, which because of its general use characteristics and ease of transport are particularly susceptible to misappropriation or theft. These items will usually have an acquisition cost of less than \$25,000. The suggested format for this report can be found in the NETL Property Handbook at http://www.netl.doe.gov/business/index.html. The report is to be submitted one year from the date of award and yearly thereafter.

B.34 REPORT OF TERMINATION OR COMPLETION INVENTORY (SF-1428 AND SF-120) (MAR 1999)

This report submitted on the SF-1428 and SF-120 is due immediately upon completion or termination of the contract. The contractor is required to perform and cause each subcontractor to perform a physical inventory, adequate for disposal purposes, of all Government property applicable to the contract.

B.35 KEY PERSONNEL STAFFING REPORT (MAR 1999)

A report shall be filed providing information on the number of hours (by WBS element/task) that each of the key personnel listed in the contract have applied to the contract during the reporting time period.

B.36 SUBCONTRACT REPORTING (FEB 2000)

With the exception of a small business, reports listed below are required to be submitted electronically by the prime contractor for each contract containing a subcontracting plan. These electronic forms collect subcontract award data from prime contractors/subcontractors that: (a) hold one or more contracts over \$500,000 of the Government share amount (over \$1,000,000 for construction of a public facility); and (b) are required to report subcontracts awarded to Small Business (SB), Small Disadvantaged Business (SDB), and Women-Owned Small Business (WOSB) concerns under a subcontracting plan. Subcontract award data reported by prime contractors/subcontractors shall be limited to awards made to their immediate subcontractors.

SUBCONTRACTING REPORT (SF294)

Semi-annual Frequency

Period End Dates: 3/31 and 9/30

Due Dates: 4/30 and 10/30

Note: The first deliverable of this report is due whichever of the two dates is at least 60 calendar days after the award start date.

SUMMARY SUBCONTRACTING REPORT (SF295)

Annual Frequency
Period End Date: 9/30

Due Date: 10/30

Note: The first deliverable of this report is only required for the next period end date of 9/30, which is at least 60 calendar days after the award start date.

SUBCONTRACT REPORTING SYSTEM (SRS)

All subcontracting reports SF294's and SF295's must be submitted electronically. Access to the SRS can be made at http://www.pr.doe.gov/srs/. All contractors must register with the Headquarters SRS Systems Manager and use it to submit the required

reports. When registering, the contractor must provide a valid DUNS number. When registration is approved, the contractor may use the system simply by logging in with his or her user name and password and transmit SF-294 and 295 data to the contracting office that requires the report. After review by the contracting office, the data will be forwarded via the Internet to DOE Headquarters. A comprehensive manual for the system may be found at http://www.pr.doe.gov/pr3.html.

B.37 SOFTWARE (MAR 1999)

Major pieces of computer software developed largely as a result of the performance of this effort shall be delivered to the Government shortly after development or at the completion of the effort, as appropriate. The software shall be delivered together with sufficient documentation concerning its development and use to permit future use by others, and to provide a firm basis for allowing modifications to be made in any subsequent development efforts. Unless otherwise specified, software shall be written in a standard computer language such as Fortran 77, operate on the VAS VMS version 5.1 operating system or an IBM PC-compatible personal computer running MS/DOS, and should not incorporate or be dependent on the use of proprietary software.

ATTACHMENT C GOVERNMENT PROPERTY - CONTRACTOR ACQUIRED

ATTACHMENT C

GOVERNMENT PROPERTY - CONTRACTOR ACQUIRED (MAR 1999)

<u>Item No.</u> <u>Description of Items(s) to be Acquired</u> <u>Est. Cost</u>

To Be Completed By Offer; if none; so indicate on this form.

ATTACHMENT D GOVERNMENT FURNISHED PROPERTY

ATTACHMENT D

GOVERNMENT FURNISHED PROPERTY

<u>Item No.</u> <u>Description of Items(s) to be Acquired</u> <u>Est. Cost</u>

To Be Completed By Offer; if none; so indicate on this form.

ATTACHMENT E

SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED BUSINESS SUBCONTRACTING PLAN

(reference FAR 52.219-9 and DEAR 952.226.72)

$\underline{\textbf{ATTACHMENT E}}$

SAMPLE SMALL BUSINESS SUBCONTRACTING PLAN (NOV 2000)

	AD. I	1	DATE: [J
CONTRACTO	K: [I		
ADDRESS: []		
SOLICITATIO	ON OR CONTRACT NUMBER:	[]	
ITEM/SERVIO	CE: []
0	ogether with any attachments, is here the applicable requirements of Pub	•		_
	l estimated dollar value of all planned is contract is: \$ []	subcontracting (to all type	es of business conc	erns)
subcont	lowing percentage goals (expressoracting dollars) are applicable to the e solicitation cited.	<u> </u>	•	
	Small business concerns: [] % contract will go to subcontractors w	<u> </u>	_	r this
υ	Veteran-owned small business concernanter this contract will go to subconcerns. This percentage is include	ntractors who are veterar	n-owned small bus	siness
υ	HUBZone small business concerns: under this contract will go to subconcerns. This percentage is include	contractors who are HU	BZone small bus	siness
υ	Small disadvantaged business concernanter this contract will go to subconcerns. This percentage is include	ontractors who are small	disadvantaged bus	siness
υ	Women-owned small business concernance this contract will go to subconcerns. This percentage is include	ontractors who are wome	en-owned small bus	siness

Principal products and/or services to be subcontracted under this contract are listed below along
with the distribution to small, veteran-owned, HUBZone, small disadvantaged, women-owned
small business, or large business concerns:

SMALL BUSINESS: []	
VETERAN OWNED SMALL BUSINESS: []
HUBZONE SMALL BUSINESS: []	
SMALL DISADVANTAGED BUSINESS: []
WOMEN-OWNED SMALL BUSINESS: []
LARGE BUSINESS: []	

- 4. The following method was used in developing subcontract goals: [The offeror will insert a statement explaining how the products and services to be subcontracted were established, how the products and services to be subcontracted to small, veteran-owned, HUBZone, small disadvantaged, and women-owned business concerns were determined, and how capabilities of these firms were substantiated prior to their inclusion in source lists.]
- 5. The following methods were used to identify potential sources for solicitation purposes: [The offeror will insert items such as, existing company source lists, the Procurement marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), the list of certified small disadvantaged business concerns of the SBA, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, veteran-owned, HUBZone, small disadvantaged, and women-owned small business trade associations. Other examples include: review "subcontractable" requirements to determine applicability to small, veteran-owned, HUBZone small/disadvantaged and women-owned business concerns.]
- 6. Indirect costs (check one below):[] have been,[] have not been

included in the goals specified in Item 2. [If so, describe the method used to determine the proportionate share of indirect costs to be incurred with small, veteran-owned, HUBZone, small disadvantaged and women-owned business concerns.]

ogram:

This individual's specific duties, as they relate to the firm's subcontracting program, are as follows:

General overall responsibility for this company's Small Business Program, the development, preparation and execution of individual subcontracting plans, and for monitoring performance relative to contractual subcontracting requirements contained in this plan. [The offeror will include a specific list of this individual's duties. These duties may include:

- (a) Developing and maintaining bidders lists of small and small disadvantaged business concerns from all possible sources.
- (b) Ensuring that procurement packages are structured to permit small and small disadvantaged business concerns to participate to the maximum extent possible.
- (c) Assuring inclusion of small and small disadvantaged business concerns in all solicitations for products or services which they are capable of providing.
- (d) Reviewing solicitations to assure that no statements or clauses are included which may tend to restrict or prohibit small/small disadvantaged business participation.
- (e) Ensuring that corporate proposal reviewers document reasons for not selecting low bids submitted by small and small disadvantaged business concerns.
- (f) Ensuring the establishment and maintenance of records of solicitations and subcontract award activity.
- (g) Attending or arranging for attendance of company counselors at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.
- (h) Conducting or arranging for conduct of motivational training for purchasing personnel pursuant to the intent of Public Law 95-507.
- (i) Monitoring attainment of proposed goals.
- (j) Preparing and submitting periodic subcontracting reports required.]

- 8. The following efforts will be taken to assure that small business, veteran-owned, HUBZone small business, small disadvantaged business and women-owned business concerns will have an equitable opportunity to compete for subcontracts: [The offeror will include a list of specific efforts to be taken. Such efforts may include:
 - (a) Maintenance of small, small disadvantaged and women-owned small business concerns source lists, guides, and other data identifying small, veteran-owned, HUBZone, small disadvantaged and women-owned business concerns and utilized by buyers in soliciting subcontracts.
 - (b) Utilization of small, veteran-owned, HUBZone, small disadvantaged, and women-owned business source lists by buyers.
 - (c) Internal efforts to guide and encourage buyers:
 - (i) Attendance at small and small disadvantaged workshops, seminars, and training programs.
 - (ii) Monitoring of activities to assure compliance with subcontracting plan.]
- 9. [Insert Firm's Name] agrees that the clause entitled "Utilization of Small Business Concerns" will be included in all subcontracts which offer further subcontracting opportunities; and all subcontractors (except small business concerns) who receive subcontracts in excess of \$500,000 will be required to adopt and comply with a subcontracting plan similar to this one. Such plans will be reviewed by comparing them with the provisions of FAR 52.219-9, and assuring that all minimum requirements of an acceptable subcontracting plan has been satisfied. The acceptability of percentage goals shall be determined on a case-by-case basis depending on the supplies/services involved and the availability of potential small business subcontractors. Once approved and implemented, plans will be monitored through the submission of periodic reports, periodic visits to subcontractors facilities to review applicable records, and subcontracting program progress.
- 10. [Insert Firm's Name] agrees to submit periodic reports and cooperate in any studies or surveys as may be required by the contracting agency or the Small Business Administration in order to determine the extent of compliance with the subcontracting plan and with the clause entitled "Utilization of Small Business Concerns" contained in the contract. We further agree to submit Standard Form 294, Subcontracting Report for Individual Contracts, and/or Standard Form 295, Summary Subcontract Report, in accordance with the instructions on the forms.

Additionally, we will ensure that our subcontractors agree to submit SF 294 and SF 295, when applicable.

The Standard Form 294 and Standard Form 295 will be submitted electronically using the Subcontract Reporting System (SRS) at http://www.pr.doe.gov/srs/.

- 11. **[Insert Firm's Name]** agrees to maintain at least the following types of records to document compliance with this subcontracting plan:
 - (a) Source Lists (e.g. PRO-Net), guides, and other data that identify small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.
 - (b) Organizations contacted in an attempt to locate sources that are small business, veteranowned small business, HUBZone small business, small disadvantaged business, or women-owned business concerns.
 - (c) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating on each solicitation
 - (i) Whether small business concerns were solicited, and if not, why not;
 - (ii) Whether veteran-owned small business concerns were solicited, and if not, why not:
 - (iii) Whether HUBZone small business concerns were solicited, and if not, why not;
 - (iv) Whether small disadvantaged business concerns were solicited, and if not, why not;
 - (v) Whether women-owned small business concerns were solicited, and if not, why not; and
 - (vi) If applicable, the reason award was not made to a small or small disadvantaged business concern.
 - (d) Records of any other outreach efforts to contact trade associations, business development organizations, and conferences and trade fairs to locate small, veteranowned, HUBZone small, small disadvantaged, and women-owned small business concerns.
 - (e) Records of internal guidance and encouragement provided to buyers through workshops, seminars, and training programs; and monitoring of performance to evaluate compliance with program requirements.
 - (f) On a contract-by-contract basis, records to support award data including the name, address and business size of each subcontractor. [Contractors having commercial plans need not comply with this requirement.]

ATTACHMENT F

NATIONAL ENVIRONMENTAL PROTECTION ACT (NEPA)

ENVIRONMENTAL QUESTIONNAIRE

ENVIRONMENTAL QUESTIONNAIRE

I. BACKGROUND

The Department of Energy's (DOE) National Environmental Policy Act (NEPA) Implementing Procedures (10 CFR 1021) require careful consideration of the potential environmental consequences of all proposed actions during the early planning stages. DOE must determine at the earliest possible time whether such actions require either an Environmental Assessment or an Environmental Impact Statement, or whether they qualify for Categorical Exclusion. To comply with these requirements, an Environmental Questionnaire must be completed for each proposed action to provide DOE with the information necessary to determine the appropriate level of NEPA review.

II. <u>INSTRUCTIONS</u>

Separate copies of this Environmental Questionnaire should be completed by the principal offeror and each proposed subcontractor. In addition, if the proposed project includes activities at different locations, an independent questionnaire should be prepared for each location. Supporting information can be provided as attachments.

In completing this questionnaire, the proposer is requested to provide specific quantities regarding air emissions, wastewater discharges, solid wastes, etc., to facilitate the necessary review. In addition, the proposer should identify the exact location of the project and specifically describe the activities that would occur at that location.

To expedite completion of this questionnaire, diskette copies in WordPerfect 6.1 are available upon request. Questions regarding the type of information requested or the approach to preparing responses should be referred to Lloyd Lorenzi, U.S. Department of Energy, National Energy Technology Laboratory, by phone (412) 892-6159, fax (412) 892-6127, or E-mail (lorenzi@netl.doe.gov).

III. **QUESTIONNAIRE**

A. PROJECT SUMMARY

- 1. Solicitation Number:
- 2. Proposer & all Proposed Subcontractors:
- 3. Principal Investigator:
- 4. Telephone Number:
- 5. Project Title:

	Duration: Location (city/township, county, state):		
	Indicate the type or scale of project:		
0	 a. Computer Modeling c. Paper Study e. Laboratory (Batch) Research g. Pilot- or Proof-of-Concept-Scale Research i. Full-Scale Demonstration 	f. □ h. □ j. □	Library/Literature Search Workshop/Conference Bench-scale Research Pilot Plant Construction/ Operation Other (please describe):
9.	Indicate the size of the proposed project a 200 Th of coal).	na the pri	mary material processed (e.g.,
	tph (of) scfm (of) acfm (of)		_ MM Btu/hr _ MW: □ electric □ thermal Other:
10.a.	Summarize the proposed work. List all accovered by this Environmental Questionna		tasks planned at the location
10.b	Characterize the work site at this location	(check al	l that apply).
	☐ Existing Building (Indoors) ☐	Develo	ped Site Undeveloped Site
11.	List all other locations where work would Environmental Questionnaire for each	-	•
12.	Describe the objectives of the proposed pr	oject.	

_	•		-	aced by the project (materials cau uantities over the entire duratio
	Materials Used (total	quantity)	Mat	terials Produced (total quantity)
	coal natural gas oil			wastewater () air emissions () solid waste ()
	electricity water			hazardous waste () salable by-
	air organic solvents			list and note
	others list and r quantity:	note		others list and note quantity
	None			None
. List	None SED PROJECT ANI all alternative approach	nes considered environmental	to achiev	

C. PROJECT LOCATION

1.	Provide a brief description of the project location (physical location, surrounding area, adjacent structures).
2.	Attach a site plan or topographic map of the area that would be affected by the project and highlight (or otherwise identify) the specific location where the project would be performed.
	CERTIFICATION BY PROPOSER
I hereby certify shown immedia	that the information provided herein is current, accurate, and complete as of the date ately below.
DATE:	month day year
SIGNATURE:	
TYPED NAM	E:
TITLE:	
ORGANIZAT	ION:

ATTACHMENT G

INTENT TO PROPOSE

ATTACHMENT G

INTENTION TO PROPOSE

SOLICITATION NUMBER: DE-RP26-01NT40774

WE DO)	DO NOT INT	END TO SUE	BMIT A PROP	OSAL.	
NAME AND ADI CONTACT.	DRESS	OF FIRM OR OR	GANIZATIOI	N (including Zi	p Code) AND PO	INT OF
						<u> </u>
TELEPHONE	NO.:		<u></u>			
FACSIMILE:			<u></u>			
E-MAIL ADD	RESS:					
Unless otherwise s not intend to subn	stated in nit a pro	the solicitation, no posal. Please return	o other solicita on this form to	ntion material sl :	nould be returned i	if you do
MAIL TO:	FEDER ATTN: P.O. BO 626 CC	EPARTMENT OF RAL ENERGY TE JAMES W. HUE OX 10940 OCHRANS MILL BURGH, PA 1523	CCHNOLOGY MMRICH ROAD	CENTER		
VIA FACSIM	ILE:	412-386-6597				
VIA E-MAIL:		huemmric@netl.de	oe.gov			

ATTACHMENT H

COST PROPOSAL INSTRUCTIONS/FORMAT

COST PROPOSAL PREPARATION INSTRUCTIONS/FORMAT

A. GENERAL.

(1) The Cost Proposal consists of the offeror's estimated costs to perform the desired work as set forth in the Statement of Work. As a minimum, the Cost Proposal shall contain the information specified below, BROKEN DOWN ON A TASK BY TASK BASIS IN ACCORDANCE WITH THE OFFEROR'S FISCAL YEAR, ALONG WITH A SUMMARY OF THE TOTAL PROJECT COSTS.

Since each Cost Proposal shall be evaluated to determine such matters as cost realism, reasonableness, understanding of the magnitude of effort, and probable cost to the Government, as well as being the basis for any necessary cost negotiation, it should be accurate, complete, and well documented.

COST INFORMATION IS <u>NOT</u> TO BE INCLUDED IN EITHER THE TECHNICAL PROPOSAL OR THE BUSINESS/MANAGEMENT PROPOSAL.

(2) Modifications to Cost Proposal.

Any modification to the Cost Proposal shall clearly indicate the cost impact of the modification to the same level of detail shown in the original proposal.

Once the prospective offeror has been selected, the estimated costs submitted with the proposal shall not be subject to increase, except for changes in certified cost or pricing data submitted with the proposal, unless changes are made in the requirements of the request for proposal.

Furthermore, increases shall be considered only in regard to those requirements that are actually affected by the changes (whether they are initiated by the Government, or by the offeror), and then only to the extent that such increases will be considered separately, and not as part of a combined overall negotiation of the estimated cost and fee for the proposed award.

(3) Certified Cost or Pricing Data.

In accordance with P.L. 87-653, as implemented by FAR 15.403, offerors may be required to certify that any cost or pricing data submitted is accurate, complete and current. In such an event, the required format for the certification can be found in FAR 15.406-2. The executed certification must be presented to the Contracting Officer after negotiations are concluded and before award can be made. FAR 15.407-1 contains applicable procedures where it is subsequently found that defective cost or pricing data was submitted.

In accordance with FAR 15.403, any offeror required to submit the above certification shall also be required to either submit, or arrange for the submission, of accurate, complete, and current cost or pricing data from his prospective subcontractors whose individual cost estimates exceed the limits established in FAR 15.404-3. This requirement may be waived under the circumstances as set forth in FAR 15.403-1.

Notwithstanding the above paragraphs, any successful offeror shall comply with applicable requirements of the "Subcontractor Cost or Pricing Data" clause of the award.

B. FORMAT AND CONTENT.

Cost and pricing data to be submitted by the offeror shall follow the format prescribed in Table 15-2 of the FAR or the alternate format specified below.

- (1) General Instructions.
 - a. Table of Contents: All forms, tables, or exhibits should be included and identified in the table of contents.
 - b. Page Identification: All pages of the Cost Proposal, including forms, must be numbered. All forms, tables, or exhibits must be clearly identified.
 - c. Rounding Off: Final monetary extensions shall be expressed in whole dollars only.

(2) Section One: Exhibits A through I

(3) Section Two: Additional Information

(4) Section Three: Exceptions and Deviations

C. PREPARATION OF EXHIBITS.

Exhibits A through I identified below shall be included in the cost proposal. Sample forms for these exhibits immediately follow these Proposal Preparation Instructions. Unless otherwise stated, the exact form need not be utilized; however, the information indicated both in this section and on the sample forms is required and must be submitted.

Cost information in the same format and level of detail is required for each subcontract or intercompany transfer estimated to exceed \$500,000. The trail from the subcontractor's project cost summaries to the offeror's Subcontracted Items line on Exhibit B-2 should be clear. Provide explanations for any differences between the amount proposed by the subcontractor to the offeror and the amounts proposed by the offeror to the Government for subcontract work.

(1) Exhibit A: Cost Proposal Cover Sheet.

The Cost Proposal Cover Sheet is to be completed by the offeror and all proposed subcontractors. Completion of the remaining exhibits (B through I) will provide supporting documentation for the proposed cost shown in Blocks 6A to 6C of the Cost Proposal Cover Sheet.

(2) Exhibit B-1: Summary of Cost Elements by Task and for Total Project. Exhibit B-2: Summary of Cost Elements by Task for Offeror's Fiscal Year.

This is a two-part exhibit, with one Exhibit B-1 providing a summary of the total costs for each task AND the resulting total project costs. To support the Exhibit B-1 amounts, an individual Exhibit B-2 is required for <u>each</u> of the offeror's fiscal years in which the project is to be performed, and will provide the costs by task within each fiscal year. All of the Exhibit B-2s will roll up into the project totals shown on the Exhibit B-1.

(3) Exhibit C: Summary of Direct Materials and/or Equipment.

Provide a consolidated priced summary of individual material quantities. Indicate the basis for the proposed prices, i.e. written quotes, catalogue prices, prior invoices, shop estimates, etc. Where appropriate, identify the vendor and provide the date and information for multiple quotes.

(4) Exhibit D-1: Summary of Direct Labor. Exhibit D-2: Summary of Direct Labor Hours by Task

This is a two-part exhibit in which the Exhibit D-1 provides the number of direct labor hours, the direct labor hourly rates, and the labor cost for each labor category proposed. As this information is required for each task by fiscal year, multiple forms are needed so that the total labor for each task matches the labor on the Exhibit B-2 task summaries.

On Exhibit D-2, provide the direct labor hours by task for each labor category for the prime contractor and all subcontractors and consultants. As an attachment to Exhibit D-2, provide a separate page that defines all labor category titles listed on the Exhibit D-2. This definition should discuss the duties normally performed by personnel having that title, and differentiate between levels of the same title (i.e., Senior Engineer vs. Junior Engineer, Technician I vs Technician II, etc.).

(5) Exhibit E: Summary of Travel.

Each trip must be itemized to identify the destination, number of travelers and length of the trip. Provide the rates used to estimate costs for airfare, lodging, meals and incidental expenses, and ground transportation.

(6) Exhibit F: Summary of Other Direct Costs.

The amount <u>and</u> basis for proposed direct costs not otherwise supported in the previous exhibits should be included here. For example, the number of hours and the hourly charge for computer time proposed might be included.

(7) Exhibit G-1: Summary of Indirect Expense Pools and Allocation Bases. Exhibit G-2: Summary of Proposed Indirect Rates.

This is a two-part exhibit, with one Exhibit G-2 providing a summary of the indirect rates developed on all Exhibit G-1s. An individual Exhibit G-1 is required for EACH indirect cost proposed, e.g. material overhead, labor overhead, G&A expense, etc. Each Exhibit G-1 will contain the major pool expense groupings by line item and dollar amount for the offeror's most recently completed fiscal year, the current fiscal year, and an estimate for the next fiscal year. Similarly, the allocation base must be identified and the dollar amount provided to permit verification of the resulting indirect rates. The inclusive dates of the offeror's fiscal year must also be identified.

If agreement has been reached with another governmental organization for the use of provisional rates, a copy of the approved rate agreement can be submitted in lieu of Exhibit G-1, but an Exhibit G-2 is still required.

(8)Exhibit H: Summary of Escalation Factors.

> This exhibit shall provide, by cost element, the escalation factors (percentages) applied to current costs to estimate the proposed costs for future fiscal years.

(9) Exhibit I: Accounting System Survey.

> The Accounting System Survey provides information on the offeror's accounting system capabilities. This exhibit should be completed by an individual responsible for maintaining the offeror's accounting system. The form provided must be used.

D. ADDITIONAL INFORMATION.

(1) Estimating Procedure.

> Provide a discussion of the offeror's estimating procedure and the rationale used in the development of the proposed costs. For effective negotiations, it is essential that there be a clear understanding of:

- The existing verifiable data.
- The judgmental factors applied in projecting from know data to the estimate.
- c. The contingencies used by the offeror in the proposed costs.

(2) Subcontracts.

The following information is required FOR EACH PLANNED SUBCONTRACT OF \$500,000 OŘ MORE:

- a. A brief description of the work to be subcontracted.b. The number of quotes solicited and received.

- c. The cost or price analysis performed by the offeror.d. Names and addresses of the subcontractors tentatively selected and the basis for their selection; i.e. low bidder, delivery schedule, technical competence.
- The offeror's rating of the subcontractor's competence; i.e. fair, good, excellent. e. f.
- Type of contract and estimated cost and fee or profit.
- Affiliation with the offeror, if any.
- Whether or not the subcontractor is a small business concern.
- The extent of subcontract supervision required.
- Whether or not the subcontractor is a minority business concern.

Consultants. (3)

If the offeror proposed the use of consultants, provide the following FOR EACH NAMED CONSULTANT:

- a. Resume.
- b. Identification of all cost elements included in the consultant's daily/hourly rates, plus a detailed explanation of any costs that would be charged over and above the rates.
- c. A signed consulting agreement between the offeror and the consultant.
 d. A signed statement from the consultant that the proposed rate is a "most favored customer rate", or the reason such a rate was not offered.
- e. A determination by the offeror that the rate proposed is comparable to the rates of other consultants doing similar types of work.

f. The offeror shall prepare a technical evaluation of the need to employ a consultant, which shall include the consultant's technical ability to perform the desired work, along with a statement and reason that in-house resources are unavailable for performance of the effort.

In those cases where a consultant IS NOT NAMED but the offeror realizes a need will exist, the offeror shall support the proposed daily rate by supplying the information in (e) and (f) above.

(4) Cost Sharing, In-kind Contributions, etc.

If either cost sharing or cost participation is proposed, information should be provided concerning the proposed contractual arrangements. Examples of arrangements and the information required are as follows (however, note that arrangements are not limited to these four):

a. Cash: Indicate the percentage proposed and identify the base to which the rate would be applied.

b. Elimination of certain items from indirect pools: Identify which elements.

c. Forbearance of fee/profit: State the standard percentage and identify the base to which the rate normally applies.

d. In-kind contribution of facilities: Explain how the value of the contribution was calculated.

In any case, any proposed cost sharing method or value is subject to independent evaluation and audit by DOE in accordance with DEAR 917.70.

(5) Financial Condition.

- a. Provide a current balance sheet, profit and loss statement for all quarters reported on the current fiscal year, and an audited financial statement for each of the last 3 fiscal years.
- b. Describe fully any assets other than cash, accounts receivable, land, buildings, and equipment carried on the above balance sheet.
- c. State what percentage this proposed contract will represent of the offeror's estimated total business during the period of performance.
- d. Describe fully the impact of this project on the offeror's organization and any contingency, limitation, and conditions affecting availability of funds for this project.
- (6) Company Compensation Policies.

The offeror shall briefly describe company compensation policies in the following areas (existing company publications may be furnished):

a. Salary Increases:

Merit Cost-of-Living General Other

b. Fringe Benefits:

Paid Absences (Vacations, Sick Leave, Holidays) Insurance Contributions Retirement Other

- c. Travel and Per Diem
- d. Relocation
- e. Bonuses & Other Employee Incentives
- f. Severance
- g. Overtime
- h. Shift Premium
- (7) High Value Equipment.

Offerors are informed that when the use of High Value Equipment (in excess of \$10,000) is applicable to the procurement, the Government reserves the right to require the submission of the feasibility of lease versus purchase studies by the successful offeror.

(8) Use of ADPE.

If the use of automatic data processing equipment (ADPE) is proposed by the offeror, the Government reserves the right to require the preparation of (1) feasibility and (2) lease versus purchase studies by the successful offeror.

(9) The offeror shall provide any other supporting information deemed necessary in this section.

E. SUMMARY OF EXCEPTIONS AND DEVIATIONS.

The offeror shall identify and explain any exceptions, deviations, or conditional assumptions taken with respect to the requirements contained in these Cost Proposal Preparation Instructions.

Any exceptions or deviations taken must contain sufficient amplification and justification to permit evaluation. All benefits to the Government shall be explained for each exception taken. Such exceptions will not, of themselves, automatically cause a proposal to be termed unacceptable. A large number of exceptions, or one or more significant exceptions not providing benefit to the Government may, however, result in rejection of the proposal(s) as unacceptable.

CONTRACT PRICING PROPOSAL COVER SHEET			1. SOLICITATION/CONTRACT/MODIFICATION NO. FETC APRROVED FORM				FORM		
NAME AND ADDRESS OF OFFEROR (Include ZIP Code) 3A.			NAME AND TITLE OF OFFEROR'S POINT OF CONTACT 3B. TELEPHONE NO.						
			4 TYF	PE OF (CONTRAC	CT ACT	ION	(Check)	
			A. NEW CONTRACT	20.		D.	1011	Corrocky	
			B. CHANGE ORDER			E.			
			С.		√	F.			
		1	I	6. PR	OPOSED CO	ST (A + B	= C)		
5. TYPE OF CONTRACT:	: COST SHARE	А. С	COST TO DOE	B. COS	T-SHARE			C. TOTAL COST	
7. PLACE(S) AND PERIO	DD(S) OF PERFORMANCE								
8. List and reference the	identification, quantity and total price proposed for each	contr	act line item. A line item co	st break	down supp	orting thi	is reca	ap is required unless	s other-
A. LINE ITEM NO.	B. IDENTIFICAT	ION			C. QUA	NTITY	D.	TOTAL PRICE	E. REF.
	9. PROVIDE NAME, ADDRESS, AND TEL	LEPH	HONE NUMBER FOR TH	IE FOL	LOWING	(If avail	able)		
A. CONTRACT ADMINIS	STRATION OFFICE		B. AUDIT OFFICE						
	E THE USE OF ANY GOVERNMENT PROPERTY NCE OF THIS WORK? (If "yes," identify)		11A. DO YOU REQUIR CONTRACT FINA THIS PROPOSED "Yes," complete It	NCING CONTE	TO PERFO	DRM L	_ PA`	YPE OF FINANCIN VANCE PRO YMENTS PAY ARANTEED LOANS	RESS MENTS
FOR THE SAME OR	WARDED ANY CONTRACTS OR SUBCONTRACTS IS SIMILAR ITEMS WITHIN THE PAST 3 YEARS? In(s), customer(s) and contract number(s))		13. IS THIS PROPOSA MATING AND ACC FAR PART 31, COS	OUNTIN	G PRACTI	CES AN	D PR	OCEDURES AND	
14	4. COST ACCOUNTING STANDARDS BOARD	(CAS	B) DATA (Public Law 91	-379 as	amended	and F	AR PA	ART 30)	
A. WILL THIS CONTRAI (If "No," explain in pro	CT ACTION BE SUBJECT TO CASB REGULATIONS? posal)		B. HAVE YOU SUBMIT (CASB DS-1 OR 2)? and if determined to be a	(If "Yes	," specify in	propos	al the		mitted
C. HAVE YOU BEEN NOTIFIED THAT YOU ARE OR MAY BE IN NON-COMPLIANCE WITH YOUR DISCLOSURE STATEMENT OR COST ACCOUNTING STANDARDS? (If "Yes," explain in proposal)			D. IS ANY ASPECT OF DISCLOSED PRACT STANDARDS? (If "Y	ICES O	R APPLICA	ABLE CC			
the Contracting Officer or	estimates and/or actual costs as of this date and conforms r authorized representative(s) the right to examine, at an egardless of type and form or whether such supporting infor	ny tim	ne before award, those reco	rds, whic	ch include l	oooks, d	ocume	ents, accounting pro	cedures and
15. NAME AND TITLE (T	уре)		16. NAME OF FIRM						
17. SIGNATURE			·				18. D	ATE OF SUBMISSI	ION

sf 1411

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EXHIBIT A

GUIDE FOR CONTRACT PRICING PROPOSAL PREPARATION

The instructions and footnotes contained on pages 2, 3 and 4 of the SF-1411 are the basic criteria for proposal preparation. However, to highlight the areas of primary concern, the following is provided:

- 1. <u>Quantities Proposed All Categories</u>: Provide the basis for the proposed quantities of material and labor hours such as current usage, prior history, engineering estimates, etc.
- 2. <u>Material Prices</u>: Explain the basis for the proposed prices, such as written quotes, catalogue prices, prior invoices, shop estimates, etc. Where appropriate, identify the source of the data and provide the date and information for multiple quotes.
- 3. <u>Direct Labor Rates</u>: Provide the basis for the proposed hourly rates. For example, the rates are actual rates or averages of actual rates for the labor category(s) proposed, paid as of a given date. If a factor is included to provide for known or anticipated increases, identify the factor and basis. If a factor for fringe benefits is included, e.g. vacations, it should be stated separately.
- 4. Overhead Rates: Explain how the rates were derived. Describe the methods of computation, including cost element breakdown, prior actual data, projected budgetary data, etc. to facilitate analysis of the pool of expenses and the base cost used to develop the rate. If agreement has been reached with another governmental organization for the use of provisional rates, submit a copy of the approved rate agreement.
- 5. Special Equipment: Provide information similar to that required for material (item 2 above).
- 6. <u>Travel</u>: Each trip must be itemized. List the destination, number of travelers, and length of the trip; and provide the rates used to estimate costs for airfare, lodging, meals, local transportation, and any incidentals.
- 7. <u>Consultants</u>: Indicate whether a firm or an individual is involved. Provide the hourly/daily rate along with the basis for the rate, and certify whether or not the proposed rate is the consultant's "most favored customer" rate. Furnish resumes or similar information regarding qualifications or experience. If travel or incidental expenses are to be charged, give the basis for these costs.
- 8. Other Direct Costs: The amount and basis for proposed costs not otherwise shown should be included here. For example, the number of hours and hourly charge for any computer time might be included.
- 9. <u>General and Administrative (G&A) Expense</u>: Provide information similar to that required for overhead costs (item 4 above).

EXHIBIT B-1

SUMMARY OF COST ELEMENTS BY TASK AND FOR TOTAL PROJECT

Total **COST ELEMENTS:** Task No. Task No. Task No. **Project** Direct Material A) Purchased Parts B) Subcontracted Items C) Other **Total Direct Materials** 2 Material Overhead 3. Direct Labor 4. Labor Overhead 5. **Special Testing** 6. Special Equipment 7. Travel 8. Consultants 9. Other Direct Costs 10. **Total Direct Cost and Overhead** 11. General & Administrative Expense 12. Facilities Capital Cost of Money 13. **Total Estimated Cost** 14. Fee 15. **Cost Sharing**

16.

Total Estimated DOE Funds Required

EXHIBIT B-2

SUMMARY OF COST ELEMENTS BY TASK FOR OFFEROR'S FISCAL YEAR 20____

Fiscal Year Total

COST ELEMENTS:

- EMENTS: <u>Task No.</u> <u>Task No.</u> <u>Task No.</u>
- 1. Direct Material
 - A) Purchased Parts
 - B) Subcontracted Items
 - C) Other

Total Direct Materials

- 2. Material Overhead
- 3. Direct Labor
- 4. Labor Overhead
- 5. Special Testing
- 6. Special Equipment
- 7. Travel
- 8. Consultants
- 9. Other Direct Costs
- 10. Total Direct Cost and Overhead
- 11. General & Administrative Expense
- 12. Facilities Capital Cost of Money
- 13. Total Estimated Cost
- 14. Fee
- 15. Cost Sharing
- 16. Total Estimated DOE Funds Required

NOTE: An Exhibit B-2 shall be provided for <u>each</u> of the offeror's fiscal years (or portion thereof) in which the project is to be performed.

EXHIBIT C

SUMMARY OF DIRECT MATERIALS AND/OR EQUIPMENT BY TASK AND OFFEROR'S FISCAL YEAR

Item Description	Quantity	Unit <u>Cost</u>	Total <u>Cost</u>	Basis for Proposed Costs
		\$	\$	

Total Cost

IN THE "SOURCE OF COST DATA" COLUMN, IDENTIFY THE BASIS FOR THE PROPOSED TERMS, SUCH AS WRITTEN QUOTES, ENGINEERING ESTIMATES, PRIOR INVOICES, CATALOGUE PRICES, ETC.

WHERE APPROPRIATE, ALSO IDENTIFY THE VENDOR AND DATE THE INFORMATION WAS OBTAINED.

EXHIBIT D-1

SUMMARY OF DIRECT LABOR BY TASK AND OFFEROR'S FISCAL YEAR

	TASK NO.:	_			
FISCAL PERIOD:					
Labor Categories	(1) <u>Proposed Hours</u>	(2) <u>Hourly Rate</u>	(1) X (2) Labor Cost		
NOTE: LIST EACH LABOR CATEGORY BY NAME; DO NOT USE CODES UNLESS AN EXPLANATION IS PROVIDED TO PERMIT DECODING.					
TOTALS	\$		\$		

Provide the above information for EACH TASK in EACH FISCAL PERIOD as provided in Exhibit B-2, so that the trail between these two exhibits is easy to follow.

EXHIBIT D-2

SUMMARY OF DIRECT LABOR HOURS BY TASK

LABOR CATEGORY:	Task No.	Task No.	Task No.	Task No.	<u>Total</u>
Prime Contractor:					
Category 1 Category 2 Category 3 Etc.					
Subtotal					
Subcontractor A:					
Category 1 Category 2 Category 3 Etc.					
Subtotal					
Subcontractor B:					
Category 1 Category 2					
Category 3 Etc.					
Subtotal					
Consultant A:					
Category 1 Category 2 Category 3 Etc.					
Subtotal					
Grand Total					

EXHIBIT E

SUMMARY OF TRAVEL BY TASK AND OFFEROR'S FISCAL YEAR

Fiscal Round-trip Ground Daily Per Daily Car Year Destination Airfare Transportation Diem Rate Rental Rate

IN THIS SECTION, PROVIDE THE RATES USED TO CALCULATE AIRFARE, GROUND TRANSPORTATION, PER DIEM (WHICH INCLUDES SUBSISTENCE, MEALS AND INCIDENTAL EXPENSES) AND CAR RENTAL.

Total Total Total Fiscal Number of Total Total Total Task Year Destination Trips/People/Days Airfare Per diem Rental Cost

EXHIBIT F

SUMMARY OF OTHER DIRECT COSTS BY TASK AND OFFEROR'S FISCAL YEAR

Description of Cost	Number of <u>Units/Hours/etc.</u>	Rate per <u>Unit/Hour/etc.</u>	Total <u>Cost</u>
	SPECIFY BOTH THE QUANTITY AND THE MEASURE; FOR EXAMPLE, 100 HOURS OR 2 DAYS.		
			\$

NOTE: THIS SAME FORMAT SHOULD BE USED TO IDENTIFY ANY CONSULTANT COSTS PROPOSED. THE NUMBER OF DAYS OR HOURS AND THE RATE CAN BE ITEMIZED FOR EACH INDIVIDUAL CONSULTANT.

SUMMARY OF INDIRECT EXPENSES

Overhead Category	Previous Fiscal Year Base Pool FY:	Y -	Current Fiscal Year Base Pool FY:	Next Fiscal Year Base Pool FY:
			IMPORTAN	NT NOTES:
		(1)		TE EXHIBIT G-1 FOR EACH 'S INDIRECT COST POOLS.
		(2)	FOR EACH POOL, EXPENSE ACCOUNT FOLLOWING PAGES PROVIDED SOLELY	. EXAMPLES ARE
Base for Allocation:				
			\$	
OFFEROR'S FISCA	L YEAR: Beginniı	ng:		_ Ending:

FOR EXAMPLE ONLY

SUMMARY OF INDIRECT EXPENSES

Overhead Category: <u>Material Overhead</u>

Account Title	Previous Fiscal Year Base Pool FY: 20xx	Current Fiscal Year Base Pool* FY: 20xx	Next Fiscal Year Base Pool FY: 20xx
Indirect Labor Additional Compensation Overtime Premium Holidays Sick Leave Suggestion Awards Vacations	\$ 823,833 31,000 5,010 26,812 20,768 15 43,607	\$ 864,327 34,392 5,263 28,100 22,018 125 45,734	\$ 1,125,500 41,225 5,500 41,340 33,750 150 56,250
Maintenance - Outside Services Other Outside Services Payroll Taxes Travel Dues and Subscriptions Pension Fund Operating Supplies	165 78 74,587 37,741 651 26,068 12,694	192 76 78,669 36,535 651 27,117 14,156	200 75 102,275 37,500 651 30,700 15,450
Stationery, Printing, & Operating Supplies Telephone Heat, Light, and Power Depreciation	10,210 19,184 158,997 79,554	10,162 20,322 170,004 79,554	10,750 21,500 175,000 79,554
Total Expense Pool (A)	\$ 1,370,974	\$ 1,437,397	\$ 1,777,370
Allocation Base: Direct Materials (B)	\$25,878,940	\$28,466,900	\$31,313,600
Material Overhead Rate $(A)/(B)$	5.3%	5.0%	5.7%

OFFEROR'S FISCAL YEAR: Beginning: April 1 Ending: March 31

^{*} Includes two months budgetary estimate.

FOR EXAMPLE ONLY

SUMMARY OF INDIRECT EXPENSES

Overhead Category: <u>Labor Overhead</u>

Account Title	Previous Fiscal Year Base Pool FY: 20xx	Current Fiscal Year Base Pool* FY: 20xx	Next Fiscal Year Base Pool FY: 20xx
Indirect Payroll Payroll Taxes Vacation Holidays Sick Leave Pensions Employee Morale Office Equipment Depreciation Subscriptions Travel Miscellaneous Stationery Reproduction Maintenance Rent Telephone Insurance	\$ 264,909 226,249 118,710 109,506 49,962 170,729 4,073 7,201 5,006 1,397 20,557 1,513 5,706 16,714 5,197 200,025 10,538 93,786	\$ 256,213 227,698 119,872 109,772 50,013 172,079 4,987 7,562 4,736 1,488 19,724 1,987 6,201 17,945 5,791 201,218 10,712 90,758	\$ 260,000 228,000 120,000 110,000 50,000 171,000 5,000 7,000 5,000 1,500 22,000 6,000 17,000 5,000 202,000 11,000 11,000 102,000
Total Expense Pool (A)	\$1,311,778	\$1,308,756	\$1,324,500
Allocation Base: Direct Labor (B)	\$2,398,541	\$2,460,872	\$2,336,000
Labor Overhead Rate (A) / (B)	54.7%	53.2%	56.7%

^{*} Includes two months budgetary estimate.

OFFEROR'S FISCAL YEAR: Beginning: April 1 Ending: March 31

FOR EXAMPLE ONLY

SUMMARY OF INDIRECT EXPENSES

Overhead Category: <u>G&A Expense</u>

Account Title	Previous Fiscal Year Base Pool FY: 20xx	Current Fiscal Year Base Pool* <u>FY: 20xx</u>	Next Fiscal Year Base Pool FY: 20xx
Payroll Taxes Officers' Salaries Indirect Salaries Interest Vacation Holidays Sick Leave Contributions Pensions Office Equipment Depreciation Travel Miscellaneous Legal Fees Accounting Fees Computer Rent Advertising Telephone Insurance	\$ 54,909 566,249 1,407,100 63,506 80,637 49,962 34,875 15,743 50,729 30,541 30,557 62,513 30,706 16,714 21,197 24,025 60,538 13,786 59,105 13,844	\$ 56,213 579,698 1,458,724 63,772 81,398 50,013 32,937 13,289 52,079 27,942 29,724 64,987 41,201 10,945 23,791 27,218 62,712 10,758 61,372 15,473	\$ 56,800 586,000 1,460,500 60,500 82,525 49,500 32,500 15,000 26,750 29,000 67,000 43,250 15,000 22,500 29,000 65,000 12,500 65,000 15,500
Total Pool Independent Research** B&P Total G&A Expenses Less unallowables: Interest Contributions Advertising Total Unallowables Net Allowable G&A Expenses (A)	\$ 2,687,236 932,940 743,902 \$ 4,364,078 63,506 15,743 13,786 \$ 93,035 \$ 4,271,043	\$ 2,764,246 826,842 526,209 \$ 4,117,297 63,772 13,289 10,758 \$ 87,819 \$ 4,029,478	\$ 2,787,325 920,000 700,000 \$ 4,407,325 60,500 15,000 12,500 \$ 88,000 \$ 4,319,325
Allocation Base: Total Cost Input (B)	\$50,993,247	\$52,932,479	\$53,549,800
G&A Rate (A) / (B)	8.4%	7.6%	8.1%

OFFEROR'S FISCAL YEAR: Beginning: April 1 Ending: March 31

^{*} Includes two months budgetary estimate.

** If there are advance agreements, the explanation should so reference. Latest actual and estimated program expenditures and allocation bases should be provided.

SUMMARY OF PROPOSED INDIRECT RATES

	Fiscal	Fiscal	Fiscal
	Year	Year	Year
Indirect Rate Category	<u>20xx</u>	<u>20xx</u>	<u>20xx</u>

NOTE: LIST ALL INDIRECT CATEGORIES CONTAINED IN YOUR PROPOSAL (I.E., MATERIAL OVERHEAD, LABOR OVERHEAD, FRINGE BENEFITS, G&A EXPENSE, ETC.)

IDENTIFY PERCENTAGES OR FACTORS: DO NOT LIST DOLLAR AMOUNTS.

IF THE "NEXT FISCAL YEAR" RATE FROM EXHIBIT G-1 DIFFERS FROM RATES SHOWN ABOVE COVERING THE ENTIRE PERIOD OF PERFORMANCE, THEN ADDITIONAL EXHIBIT G-1 EXPENSE POOL AND ALLOCATION BASE DATA MUST BE PREPARED SO THAT ALL PROPOSED RATES ARE FULLY SUPPORTED.

EXHIBIT H

SUMMARY OF ESCALATION FACTORS/PERCENTAGES BY COST ELEMENT

	Fiscal	Fiscal	Fiscal
Cost Element	<u>Year</u>	<u>Year</u>	Year

NOTE: LIST EACH COST ELEMENT (I.E., MATERIALS, LABOR, TRAVEL, ETC.) THAT IS ESCALATED AND THE APPLICABLE RATE.

IDENTIFY PERCENTAGES OR FACTOR: DO NOT LIST DOLLAR AMOUNTS.

EXHIBIT I

PRE-AWARD ACCOUNTING SYSTEM SURVEY

This accounting system review is designed to determine the adequacy and suitability of a contractor's accounting system and practices for accumulating costs under the type of Government instrument to be awarded. The Offeror(s) and each subcontractor whose total proposed costs exceed \$100,000 shall complete the attached accounting system survey. The form should be completed and signed by an individual familiar with the capabilities of the organization's accounting system.

Does the	he Accounting System provide for:	<u>YES</u>	<u>NO</u>
1.	Proper segregation of direct costs from indirect costs?		
2.	Identification and accumulation of direct costs by contract? Under a job order cost system, subsidiary cost records for each individual contract are generally available?		_
3.	A logical and consistent method for the allocation of indirect costs to intermediate and final cost objectives?		
4.	Accumulation of costs under general ledger control?		
5.	A timekeeping system that identifies employees' labor by intermediate or final cost objectives?		
6.	A labor distribution system that charges direct and indirect labor to the appropriate cost objectives?		
7.	Interim (at least monthly) determination of costs charged to a contract through routine posting of books of account?		
8.	Exclusion from costs charged to Government contracts of amounts which are not allowable pursuant to FAR Part 31, Contract Cost Principles and Procedures, or other contract provisions?		
9.	Identification of costs by contract line item if required by the proposed contract?		_
	TED NAME TITLE:		
SIGNA	ATURE:	DATE:	

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR QUOTERS

	\mathbf{P}_{A}	<u>AGE</u>
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SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS OR QUOTERS

K.1 <u>52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS. (APR 1991)</u>

- (a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.
- (b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989 -
 - (1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;
 - (2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and
 - (3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.
- (c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

K.2 52.204-3 TAXPAYER IDENTIFICATION. (OCT 1998)

(a) Definitions.

"Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

- (b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.
- (c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

	to verify the accuracy of the offeror's TIN.
(d)	Taxpayer Identification Number (TIN).
	[] TIN:
	[] TIN has been applied for.
	[] TIN is not required because:
	[] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;
	[] Offeror is an agency or instrumentality of a foreign government;
	[] Offeror is an agency or instrumentality of the Federal Government.
(e) T	ype of organization.
	 [] Sole proprietorship; [] Partnership; [] Corporate entity (not tax-exempt); [] Corporate entity (tax-exempt); [] Government entity (Federal, State, or local); [] Foreign government; [] International organization per 26 CFR 1.6049-4; [] Other
(f) C	ommon parent.
	[] Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.
	[] Name and TIN of common parent:
	Name: TIN:

K.3 <u>52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS (MAY 1999)</u>

- (a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.
- (b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it [] is a women-owned business concern.

K.4 <u>52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS. (MAR 1996)</u>

- (a) (1) The Offeror certifies, to the best of its knowledge and belief, that -
 - (i) The Offeror and/or any of its Principals -
 - (A) Are [] are not [] presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;
 - (B) Have [] have not [], within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
 - (C) Are [] are not [] presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.
 - (ii) The Offeror has [] has not [], within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.
 - (2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

- (b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

- (d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

K.5 52.215-6 PLACE OF PERFORMANCE. (OCT 1997)

- (a) The offeror or respondent, in the performance of any contract resulting from this solicitation, ___ intends, ___ does not intend (check applicable block) to use one or more plants or facilities located at a different address from the address of the offeror or respondent as indicated in this proposal or response to request for information.
- (b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

PLACE OF PERFORMANCE STREET ADDRESS, CITY STATE, COUNTY, ZIP CODE	NAME AND ADDRESS OF OWNER AND OPERATOR OF THE PLANT OR FACILITY IF OTHER THAN OFFEROR OR RESPONDENT

K.6 <u>52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS. (OCT 2000) -- ALTERNATE I (OCT 2000)</u>

- (a) (1) The standard industrial classification (NAICS) code for this acquisition is [insert NAICS code].
 - (2) The small business size standard is [insert size standard].
 - (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b) Representations. (1) The offeror represents as part of its offer that it [] is, [] is not a small business concern.
 - (2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, as part of its offer that it (__) is, (__) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.
 - (3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it [] is, [] is not a women-owned small business concern.
 - (4) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it [] is, [] is not a veteran-owned small business concern.

- (5) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.] The offeror represents as part of its offer that it [] is, [] is not a service-disabled veteran-owned small business concern.
- (6) [Complete only if offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, as part of its offer, that--
 - (i) It [] is, [] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR Part 126; and
 - (ii) It [] is, [] is not a joint venture that complies with the requirements of 13 CFR Part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. [The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture: ______.] Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.
- (c) Definitions. As used in this provision --

"Small business concern,", means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

"Service-disabled veteran-owned small business concern"--

- (1) Means a small business concern--
 - (i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
 - (ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent care giver of such veteran.
- (2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Women-owned small business concern," as used in this provision, means a small business concern -

- (1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
- (2) Whose management and daily business operations are controlled by one or more women.

- (d) Notice. (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.
 - (2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall --
 - (i) Be punished by imposition of fine, imprisonment, or both;
 - (ii) Be subject to administrative remedies, including suspension and debarment; and
 - (iii) Be ineligible for participation in programs conducted under the authority of the Act.

K.7 <u>52.219-22 SMALL DISADVANTAGED BUSINESS STATUS. (OCT 1999)</u>

- (a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.
- (b) Representations.
 - (1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--
 - (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and
 - (A) No material change in disadvantaged ownership and control has occurred since its certification;
 - (B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
 - (C) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net); or
 - (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.
 - (2) For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: []

- (c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:
 - (1) Be punished by imposition of a fine, imprisonment, or both;
 - (2) Be subject to administrative remedies, including suspension and debarment; and
 - (3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

K.8 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that -

- (a) It (__) has, (__) has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;
- (b) It (__) has, (__) has not filed all required compliance reports; and
- (c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

K.9 <u>52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)</u>

The offeror represents that -

- (a) It ____ has developed and has on file, ____ has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2); or
- (b) It ____ has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

K.10 <u>52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING</u> (OCT 2000)

- (a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.
- (b) By signing this offer, the offeror certifies that -
 - (1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or
 - (2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (*Check each block that is applicable*.)

The facility does not manufacture, process, or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c); __ (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A); __ (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA); __ (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction. 52,226-2 HISTORICALLY BLACK COLLEGE OR UNIVERSITY AND MINORITY INSTITUTION REPRESENTATION (MAY 1997) (a) Definitions. As used in this provision -"Historically Black College or University" means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense, the National Aeronautics and Space Administration, and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986. "Minority Institution" means an institution of higher education meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)) which, for the purpose of this provision, includes a Hispanic-serving institution of higher education as defined in Section 316(b)(1) of the Act (20 U.S.C. 1059c(b)(1)). (b) Representation. The offeror represents that it -___ is ___ is not a Historically Black College or University; ____ is ____ is not a Minority Institution. 52.227-15 REPRESENTATION OF LIMITED RIGHTS DATA AND RESTRICTED COMPUTER SOFTWARE (MAY 1999) (a) This solicitation sets forth the work to be performed if a contract award results, and the Government's known delivery requirements for data (as defined in FAR 27.401). Any resulting contract may also provide the Government the option to order additional data under the Additional Data Requirements clause at 52.227-16 of the FAR, if included in the contract. Any data delivered under the resulting contract will be subject to the Rights in Data--General clause at 52.227-14 that is to be included in this contract. Under the latter clause, a Contractor may withhold from delivery data that qualify as limited rights data or restricted computer software, and deliver form, fit, and function data in lieu thereof. The

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Government the right to inspect such data at the Contractor's facility.

latter clause also may be used with its Alternates II and/or III to obtain delivery of limited rights data or restricted computer software, marked with limited rights or restricted rights notices, as appropriate. In addition, use of Alternate V with this latter clause provides the

(b) As an aid in determining the Government's need to include Alternate II or Alternate III in the clause at 52.227-14, Rights in Data--General, the offeror shall complete paragraph (c) of this provision to either state that none of the data qualify as limited rights data or restricted computer software, or identify, to the extent feasible, which of the data qualifies as limited rights data or restricted computer software. Any identification of limited rights data or restricted computer software in the offeror's response is not determinative of the status of such data should a contract be awarded to the offeror.

(c)	The of	feror has reviewed the requirements for the delivery of data or software and states or check appropriate block]
		None of the data proposed for fulfilling such requirements qualifies as limited rights data or restricted computer software.
		Data proposed for fulfilling such requirements qualify as limited rights data or restricted computer software and are identified as follows:

Note: "Limited rights data" and "Restricted computer software" are defined in the contract clause entitled "Rights in Data--General."

K.13 <u>52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION</u> (JUN 2000)

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT - COST ACCOUNTING PRACTICES AND CERTIFICATION

- (a) Any contract in excess of \$500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.
- (b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

Caution: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c)	Check	the	appro	priate	box	be]	low:
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- [] (1) Certificate of Concurrent Submission of Disclosure Statement. The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows:
 - (i) Original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable; and
 - (ii) One copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement:
Name and Address of Cognizant ACO or Federal Official Where Filed

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

[] (2) Certificate of Previously Submitted Disclosure Statement. The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement:		
Name and Address of Cognizant ACO or Federal Official Who	re File	ed

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

[] (3) Certificate of Monetary Exemption. The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling \$50 million or more in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

[] (4) Certificate of Interim Exemption. The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

Caution:

Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of \$50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS - ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than \$50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

Caution:

An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of \$50 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of \$50 million or more.

III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

Γ	1 ves	[]	no

K.14 <u>COMPLIANCE WITH VETERANS EMPLOYMENT REPORTING REQUIREMENTS</u> (JUNE 1999)

- (a) The Offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (i.e. the VETS-100 report required by the Federal Acquisition Regulation clause 52.222-37, Employment Reports on Disabled Veterans and Veterans of the Vietnam Era), it has [], has not [] submitted the most recent report required by 38 U.S.C. 4212(d).
- (b) An Offeror who checks "has not" may not be awarded a contract until the required reports are filed. (31 U.S.C. 1354)

K.15 SIGNATURE/CERTIFICATION (MAR 1999)

By signing below, the offeror certifies, under penalty of law, that the representations and certifications are accurate, current, and complete. The offeror further certifies that it will notify the Contracting Officer of any changes to these representations and certifications. The representations and certification made by the offeror, as contained herein, concern matters within the jurisdiction of an agency of the United States and the making of a false, fictitious, or fraudulent representation or certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

Signature of the Officer or Employee Responsible for the Offer	Date of Execution
Typed Name and Title of the Officer or Employee Responsible for the Offer	
Name and Address of Organization:	
Solicitation Number:	

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SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS OR QUOTERS

L.1 CONSECUTIVE NUMBERING (JAN 1999)

Due to automated procedures employed in formulating this document, clauses and provisions contained within it may not always be consecutively numbered.

L.2 <u>52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE</u> (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at these address(es):

http://www.arnet.gov/far/index.html

http://www.pr.doe.gov/dear.html

L.3 CONTENT OF RESULTING CONTRACT (NOV 1998)

Any contract awarded as a result of this RFP will contain PART I - The Schedule, PART II - Contract Clauses, and PART III, Section J - List of Documents, Exhibits and Other Attachments (excluding those attachments including in this RFP relating to submission of proposals). Blank areas appearing in these sections, indicated by "[]" will be completed prior to contract award.

Offerors should carefully review the information contained therein, and, as appropriate, state any proposed exceptions/deviations per FAR 52.215-1.

L.4 PROHIBITION ON PARTICIPATION BY FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDC) (MAR 1999)

Federally Funded Research and Development Centers (FFRDC), including Management and Operating (M&O) contractors and/or National Laboratories are prohibited from participating at any level in proposals submitted in response to this solicitation. If a proposal is received which includes participation by FFRDC's, it will be rejected without evaluation.

L.5 RESPONSIBLE PROSPECTIVE CONTRACTORS (JUNE 1999)

All responsible individuals, corporations, non-profit organizations, educational institutions, and state or local governments may submit proposals for consideration. The general and additional minimum standards for responsible prospective Contractors set forth at FAR 9.1 apply.

DOE may conduct preaward surveys in accordance with FAR 9.106 and may solicit from available sources, relevant information concerning the offeror's record of past performance, and use such information in making determinations of prospective offeror responsibility.

L.6 TIME, DATE AND PLACE PROPOSALS ARE DUE (JAN 2000)

The date and time for submission of proposals shall be NO LATER THAN [INSERT DATE], 4:00 p.m., local prevailing time at the place designated for receipt of proposals. (See the proposal submission instructions, including the provision describing treatment of late submissions, modifications, and withdrawals of proposals.)

Proposal Submission by U.S. Mail

Proposals must be received at the following mailing address:

U. S. Department of Energy National Energy Technology Laboratory P.O. Box 10940, MS 921-107 Pittsburgh, PA 15236-0940

• Proposal Submission by Other than U.S. Mail

Offerors electing to submit proposals by means other than the U.S. Mail, including commercial courier service, assume the full responsibility of insuring that proposals are received at the following hand-carry address by the date and time specified above:

U.S. Department of Energy National Energy Technology Laboratory 626 Cochrans Mill Road Building 921, Room 164 Pittsburgh, PA 15236-0940

Such proposals must be closed and sealed as if for mailing.

External Marking of Proposals

Proposals shall be marked with the following information:

- (1) Address of Proposer
- (2) Solicitation Number
- (3) Due Time and Date of Proposals

L.7 INTENTION TO PROPOSE (MAR 1999)

To enable us to anticipate the number of submissions to be evaluated, please complete the information in the Intention to Propose form contained in **Section J** and return to the addressee shown via mail, facsimile or e-mail, by the earliest practical date.

L.8 NUMBER OF AWARDS (NOV 1997)

It is anticipated that there will [TBD] award(s) resulting from this solicitation. However, the Government reserves the right to make any number of awards, or no award, if considered to be in the Government's best interest to do so.

L.9 <u>52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION</u> (FEB 2000)

(a) Definitions. As used in this provision--

"Discussions" are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

"In writing" or "written" means any worded or numbered expression which can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

"Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

"Time," if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

- (b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).
- (c) Submission, modification, revision, and withdrawal of proposals. (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.
 - (2) The first page of the proposal must show--
 - (i) The solicitation number;
 - (ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);
 - (iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;
 - (iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

- (v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.
- (3) Submission, modification, revision, and withdrawal of proposals. (i) Offerors are responsible for submitting proposals, and any modifications or revisions, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that proposal or revision is due.
 - (ii) (A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--
 - (1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or
 - (2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or
 - (3) It is the only proposal received.
 - (B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.
 - (iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.
 - (iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.
 - (v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

- (4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.
- (5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.
- (6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.
- (7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.
- (8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.
- (d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).
- (e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--
 - (1) Mark the title page with the following legend:

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of—or in connection with—the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend:

Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

- (f) Contract award. (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.
 - (2) The Government may reject any or all proposals if such action is in the Government's interest.
 - (3) The Government may waive informalities and minor irregularities in proposals received.

- (4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.
- (5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.
- (6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.
- (7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.
- (8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.
- (9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.
- (10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.
- (11) The Government may disclose the following information in postaward debriefings to other offerors:
 - (i) The overall evaluated cost or price and technical rating of the successful offeror;
 - (ii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection;
 - (iii) A summary of the rationale for award; and
 - (iv) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

L.10 <u>52.216-1 TYPE OF CONTRACT (APR 1984)</u>

The Government contemplates award of a Cost Plus Fixed Fee (CPFF) contract resulting from this solicitation.

L.11 FALSE STATEMENTS (NOV 1997)

Proposals must set forth full, accurate, and complete information as required by this solicitation (including attachments). The penalty for making false statements in proposals is prescribed in 18 U.S.C. 1001.

L.12 EXPENSES RELATED TO OFFEROR SUBMISSIONS (FEB 1998)

This solicitation does not commit the Government to pay any costs incurred in the submission of any proposal or in making necessary studies or designs for the preparation thereof or to acquire or contract for any services.

L.13 ALTERNATE PROPOSAL INFORMATION - NONE (NOV 1997)

Alternate proposals are not solicited, are not desired, and shall not be evaluated.

L.14 AMENDMENT OF THE SOLICITATION (JAN 2000)

The only method by which any term of this solicitation may be modified is by an express, formal amendment to the solicitation generated by the issuing office. No other communication made at any scheduled preproposal conference or subsequent discussions, whether oral or in writing, will modify or supersede the terms of this solicitation. All amendments to this RFP will be posted on the NETL Homepage at "http://www.netl.doe.gov/business/solicit/". Receipt of an amendment to a solicitation by an offeror must be acknowledged and received prior to the hour and date specified for receipt of offers.

L.15 CLASSIFIED MATERIAL - NONE (NOV 1997)

Performance under the proposed contract is not anticipated to involve access to classified material.

L.16 PREPROPOSAL CONFERENCE IS NOT PLANNED (NOV 1997)

A preproposal conference for this solicitation is not contemplated.

L.17 AN EQUAL RIGHTS NOTE (NOV 1997)

Wherever, in the solicitation or contract "man," "men," or their related pronouns may appear, either as words or as parts of words (and other than with obvious reference to named male individuals), they have been used for literary purposes and are meant in their generic sense (i.e., to include all humankind - both female and male sexes).

L.18 SMALL BUSINESS SIZE STANDARDS AND SET-ASIDE INFORMATION (MAY 1999)

This acquisition is partially set-aside for Small Business. The NAICS Code is 54171. The NAICS Size Standard is 500 employees.

L.19 PROPOSAL PREPARATION INSTRUCTIONS -- GENERAL (MAR 1999)

To aid in evaluation, proposals shall be clearly and concisely written as well as being neat, indexed (cross-indexed as appropriate), and logically assembled. All pages of each part shall be appropriately numbered, and identified with the name of the offeror, the date, and the solicitation number to the extent practicable.

The proposal is to clearly and fully demonstrate the offeror's capability, knowledge, experience, and expertise with regard to the requirements described herein. Simply stating that the offeror understands and will comply with technical and management requirements is not adequate. Similarly, phrases such as "standard procedures will be employed" or "well-known techniques will be used" are also inadequate.

Overall Arrangement of Proposal.

The overall proposal shall consist of three (3) physically separate volumes, individually entitled as stated below. The required number of each proposal volume is shown below:

PROPOSAL VOLUME TITLE	ORIGINAL	<u>COPIES</u>	PAGE <u>LIMITATION</u>
Volume I Offer and Other Documents	1	2	None
Volume II Technical Proposal	1	7	60 [See Paragraph L.24]
Volume III Cost Proposal	1	2	None

The text of each proposal volume shall be typed, single-spaced, using Elite size (or equivalent, such as times-roman, courier, or arial), 12 pitch type (or equivalent), and printed, unreduced on size 8 1/2-inch by 11-inch paper. For interpretation of page limitation guidelines, the front and back of a single sheet are counted as two pages. Illustrations shall be legible and no longer than 11-inch by 17-inch fold-outs, as appropriate for the subject matter. Each 11-inch by 17-inch fold-out is considered two pages when determining the number of pages. Pages of each volume shall be sequentially numbered with the volume and page numbers on each page. Except as otherwise noted in the solicitation, the page guidelines set forth constitute a limitation on the total amount of material that may be submitted for evaluation. No material may be incorporated in any proposal by reference as a means to circumvent the page limitation.

Offerors are not to provide proposal information in three-ring binders.

L.20 PREPARATION INSTRUCTIONS: VOLUME I - OFFER AND OTHER DOCUMENTS (MAR 1999)

Volume I, Offer and Other Documents, consists of the actual offer to enter into a contract to perform the desired work, other documents requiring the signature of the offeror's authorized representative, and the offeror's description of its business and management approaches to satisfying the Statement of Work and its capability to perform the work.

FORMAT AND CONTENT

Volume I, Offer and Other Documents, shall include the following documents (in the order listed):

- 1. The SF33 Form -- Solicitation, Offer and Award (Page 1 of this solicitation)
 - (a) Offerors shall complete Blocks 12, 15A, 15B, 15C, 16, and sign in block 17. The SF33 is to be fully executed, including the acknowledgment of amendments, if applicable, and signed by an authorized individual of the proposing organization. Two signed originals shall be included.
 - (b) The offeror's Acceptance Period (See Block 12) entered shall not be less than 180 days.
 - (c) Signature Authority. The person signing the SF33 must have the authority to commit the offeror to all of the provisions of the proposal, fully recognizing that the Government has the right, by terms of the solicitation, to make an award without further discussion if it so elects.
- 2. Offeror Representations and Certifications Fully Executed

Offeror Representations and Certifications included under Section K of this solicitation are to be fully executed and a copy included in each copy of Volume I, Offer and Other Documents. As stated in Section K, should an offeror be selected for further negotiations, he must certify to the certifications referenced.

3. Supporting Data

The supporting data to be included in Volume I shall include all of the following information:

- (a) The suitability of proposed teaming agreements among participants (including subcontractors).
- (b) A discussion of the proposed involvement of qualified and capable small and small socially and economically disadvantaged business concerns. This section shall also contain the offerors commitment to, on request, submit and negotiate in good faith a Small and Small Disadvantaged Business Subcontracting Plan in accordance with FAR 52.219-9 of this solicitation.

4. Exceptions and Deviations

The offeror shall identify and explain any exceptions or deviations taken or conditional assumptions made with respect to the model contract, Offeror Representations and Certifications, and the requirements included in Volume I -- Offer and Other Documents, Volume II -- Technical Proposal and Volume III -- Cost Proposal. Any exceptions taken must contain sufficient justification to permit evaluation. The benefit to the Government shall be explained for each exception taken. Such exceptions will not, of themselves, automatically cause a proposal to be termed unacceptable. A large number of exceptions, or one or more significant exceptions not providing benefit to the Government, however, may result in rejection of your proposal(s) as unacceptable. Offerors who object to review of their proposal by persons other than Government employees shall so state in this Volume I. Again, offerors are cautioned that DOE may be unable to give full consideration to proposals which indicate that only Government evaluation is authorized.

L.21 ENVIRONMENTAL, HEALTH, SAFETY AND SOCIETY IMPACT (MAR 1999)

Should the Offeror be selected for further negotiations leading to contract award, the Offeror will be required to submit a completed Environmental Assessment Questionnaire (see Section J, Attachment F). This will be a detailed, self-contained document summarizing the proposed action, its alternatives, the existing environment, anticipated impacts from the project, and any regulatory compliance necessary. DOE shall use this questionnaire to evaluate the potential impacts of the proposed project, and at the earliest possible time, whether execution of the proposed activities will require an Environmental Assessment (EA), an Environmental Impact Statement (EIS), or can be covered under a Categorical Exclusion (CX). If the environmental impacts are considered significant, the selectee, prior to award, will be required to prepare the Environmental Compliance Plan, an Environmental Monitoring Plan, and Environmental Report. Contract award will be made after the environmental material submitted by the respective contractor has been reviewed and accepted by DOE.

L.22 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUN 1999)

- (a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet Information Services.
- (b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:
 - (1) Company name.
 - (2) Company address.
 - (3) Company telephone number.
 - (4) Line of business.
 - (5) Chief executive officer/key manager.
 - (6) Date the company was started.
 - (7) Number of people employed by the company.
 - (8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet home page at http://www.customerservice@dnb.com/. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

L.23 PREPARATION INSTRUCTIONS: VOLUME II - TECHNICAL PROPOSAL (OCT 2000)

Volume II - Technical Proposal will be used to assess both the scientific merit of the proposed work and its relevance to both DOE's current programmatic objectives and the objectives of this solicitation (see Part I, Section J, Attachment A) The technical proposal must be self-contained and written in a clear and concise manner. The proposal shall be definitive with respect to the research which the offeror actually proposes to conduct. If the proposal is selected for comprehensive evaluation, the criteria specified in Section M shall be applied.

The maximum number of pages for the Technical Proposal shall be limited to 60 pages. For interpretation of page guidelines, reference the clause entitled, "Proposal Preparation Instructions -- General". Note that the Cover Sheet, Resumes, Public Abstract, Table of Contents and other Pertinent Publications are not included in the page limitation. The Statement of Work shall not exceed 15 pages, and is not included in the technical proposal's 60 page limit.

To ensure that the technical proposal is evaluated strictly on its own merit, no cost information shall be included.

FORMAT AND CONTENT

The offeror shall include a technical discussion in the format specified below. This format relates to the technical evaluation criteria found in Section M. Alternate heading names and additional headings may be included as desired.

1. Cover Sheet.

A completed and signed cover sheet as per FAR 52.215-1 shall be used. The title of the proposed effort should be concise and descriptive of the work to be performed.

2. Public Abstract.

This section shall contain a concise public abstract of no more than one (1) typewritten page clearly stating the objectives of the proposed research, the title of the project, methodology, and sponsoring organization(s). The abstract is to provide an overview of the proposed project objectives. It is a stand-alone document. This abstract may be released to the public by DOE in whole or in part at anytime. It is therefore required that it shall not contain proprietary data or confidential business information. The offeror shall indicate a point of contact for coordination, preparation and distribution of press releases.

3. Table of Contents.

In order to produce a comprehensive application for this solicitation, the offeror should address, at a minimum, the areas listed below. To help facilitate the review process and to insure addressing all the review criteria, the offeror shall use the following Table of Contents when preparing the technical application.

TABLE OF CONTENTS

Page

A. PUBLIC ABSTRACT

B. TABLE OF CONTENTS

List of Tables List of Figures List of Acronyms

C. TECHNICAL DISCUSSION

This section shall contain the major portion of the Technical Proposal. It shall clearly address each of the Technical Proposal evaluation criteria in Part IV -- Section M, and at a minimum cover the factors listed below.

Note: It is critical that the offeror's Technical Discussion clearly address each 'element' cited herein; these elements are structured to correlate one-to-one with the weighted evaluation criterion given in Section M of this solicitation. Failure to comprehensively address any element can adversely impact the favorable evaluation of your technical proposal.

Element 1. Technical Understanding and Approach

This section shall describe both the offeror's technical understanding of the problem/need, and also the offeror's technical approach to accomplish the work.

The offeror shall provide a discussion that illustrates a technical understanding of the problem/need. This discussion may include, but is not limited to, a discussion/overview of the problem/need in the DOE Complex for the selected work area, baseline technologies, alternative technologies and other related work, and issues/acceptance requirements (e.g. Environmental, Health, and Safety, others) for technology end-users, regulators, and stakeholders. A full discussion of the understanding of the technical problem and issues, as well as the conditions at the planned demonstration sites should also be included.

The offeror shall address the technical approach to accomplish the work by providing a discussion that includes, but is not limited to, a description of the proposed technology and the scientific/engineering basis, its intended uses(s), the need(s)/problems(s) the technology addresses and breadth of applications in the DOE Complex, history of previously related work, and novel/innovative nature (not redundant of existing technologies). The current maturity of the technology should also be addressed. It is critical that evidence for attaining the Engineering Developmental Stage or higher, is provided. This should include, but is not limited to, a discussion that technical feasibility has been demonstrated and that it will meet end-user performance requirements. Evidence should include summaries and data results of proof-of-principle, laboratory-scale experimentation, and/or any field testing. Clear and direct scale-up capability for prototype and full-scale demonstration should be provided.

In the technical approach, the offeror shall provide a clear description of the project objectives(s) and deliverables (e.g., reports, devices (s)). Technical approach must provide a clear and logical path for the project. The offeror shall provide a statement of work (SOW) which shall be divided into logical tasks and subtasks necessary to accomplish the project objectives(s). The offeror should also address performance requirements and measures provided in this RFP. The Statement of Work should be structured into Phase I and Phase II. It is critical that the proposal SOW include both Phase I and Phase II tasks; proposals not addressing both Phase I and II tasks will be considered incomplete. Phase I should include advanced engineering design, system construction, control tests, pilot field tests, and supporting activities. Phase II should include full scale demonstration of the technology system and supporting activities. In this proposed effort, possible failure scenarios should be fully addressed, and alternative plans should be identified. A project review and contract decision point for continuance of the contract into Phase II (contract go/no go decision point), shall be a milestone placed between Phase I and Phase II. The key go/no go decision point will be used to evaluate project success. The offeror shall also identify any specific success criteria that must be satisfied to demonstrate success for this key go/no-go decision point; the identified performance requirements and measures provided in this RFP should also be considered for this decision point.

The proposer shall provide a PERT (Program Evaluation and Review Techniques) chart or equivalent depicting the project schedule, milestones, and interrelationships of the project tasks. The offeror shall identify the critical path which identifies the sequential tasks which, if not completed on time, will result in a delay in the overall project schedule. A realistic time frame for accomplishment of 'Key Milestones' should be clearly established. If the work cannot be performed in accordance with the Government's desired schedule, the proposal should state and indicate the reasons why. Conversely, if the schedule can be realistically shortened, it may be advantageous to elaborate on this contention.

The offeror shall provide a table listing the estimated labor hours and labor categories (e.g. management, engineering, scientific, technician, analytical, clerical) required for each task. The offeror shall include a table showing labor hours and labor categories for any proposed subcontracting or consulting effort for each task. The offeror shall discuss the rationale used to develop estimates for labor hours, labor categories, subcontracting effort, resulting effort, and travel. Cost information is not to be included in the technical proposal volume.

The offeror shall describe the proposed travel. The purpose of the trip, number of trips, the origin and destination, trip duration, and the number of personnel shall be included in the explanation.

Element 2. Merit of the Technology

The offeror shall describe the merits of the proposed technology in terms of anticipated performance and/or cost savings over existing technologies and how the technology is an improvement over baseline technologies. Major impacts for future potential use of the technology should be clearly stated and supported by evidence provided. Sufficient information should be provided to support the merits claimed for the proposed technology. Where applicable, the following areas should be addressed (not in order of priority or importance).

 Breadth of application (prevalence of need, and application of technology in addressing need).

- Ability to meet end-user requirements, address end-user issues, and obtain end-user acceptance and commitment. End-user performance requirements should be incorporated into the project and implementation issues defined. Evidence should be provided that end-user requirements and acceptance will likely be met.
- Reducing/minimizing waste and contamination (generated or secondary wastes).
- Improving clean-up and waste management/processing operations.
- Reducing the time required for remediation and/or waste management/processing.
- Reducing risks including public, worker, and environmental.
- Cost reduction. Detailed information should be provided to support cost reduction statements.
- Ability to meet regulatory compliance, address regulatory issues, and obtain regulatory acceptance. Evidence should be provided that regulatory compliance and acceptance will likely be met.
- Reducing environmental impacts.
- Ability to address stakeholders issues and obtain stakeholders acceptance.
- Feasibility in implementing the technology. Research must yield results within a time frame consistent with implementation/deployment needs.

Element 3. Personnel Qualifications, Project Organization, and Experience

The offeror shall describe relevant technical and managerial experience, qualifications, training, and availability of the proposed project personnel including subcontractors and consultants. The offeror shall provide the names of management and key personnel, including subcontractor and consultants, to be assigned for direct work on the project and their time commitments. Resumes of key project personnel (e.g. project manager; principal investigator; key environmental, safety, and health personnel) shall be included in an appendix to the proposal. Educational background, accomplishments, and other pertinent information shall be provided concerning specified personnel.

The offeror shall discuss any prior experience in managing projects that were similar in type, size, and complexity. The offeror shall especially note experience working in similar field conditions expected at the demonstration site, including experience in working with DNAPL (Dense Non Aqueous Phase Liquids) contamination and experience in working with radiologically contaminated waste sites and material.

The offeror shall provide a description of the project organization structure and the lines of authority, both technical and administrative, and the relationship to the proposed research effort.

The proposer must also provide a detailed organization chart for the entire project team delegated to carry out the Statement of Work and an accompanying narrative indicating the interactions of all key project personnel.

Role and responsibilities of key personnel shall be clearly defined. A Manning Table shall be included, which indicates the time commitments for ALL key personnel assigned to this project. It is not sufficient to merely indicate a certain number of hours; a determination as to why that number of hours required shall be included. In addition, the hours shall be related to the specific tasks to be performed and, as far as possible, shall indicate the job disciplines and classifications (engineering, manufacturing, scientific) under each task (No cost information shall be included in this "manning table).

The proposer needs to discuss its internal approach for evaluating project performance and prepare a list of performance goals that will be used by the project manager to determine the progress of team members towards meaningful conclusion of the project within time and budget constraints.

The relevance of prior or corporate/institutional experience related to this specific RFP requirement shall be discussed. The proposer must provide comprehensive discussion of how the project will be managed to accomplished its objectives and ensure its success. This discussion must explain the proposer's approach for directing and coordinating human, material, and financial resources throughout the project life cycle, individual team member activities, cost management and controls, QA/QC, environmental, safety, and health procedures, project reviews, compliance with reporting requirements, and other management elements. The proposer shall state the control tools it will use to maintain established cost, technical, and schedule baselines and how the offeror proposes to manage future baseline changes (unanticipated changes to work scope, cost plans, and schedule).

Element 4. Facilities and Equipment

The offeror shall provide a discussion of the type, quality, availability, and appropriateness of the proposed facilities and equipment, including a description of any facilities and/or nonmonetary resources requested to be furnished by the Government for use by the offeror in performance of the proposed research.

The offeror shall furnish a list (i.e., type and quantities) of materials, parts, equipment, and test facilities required for the project. The offeror shall provide a detailed description of the existing and proposed facilities, and arrangements to provide such facilities, including a discussions of the availability and suitability of the bench- and control-testing facilities, instrumentation, analytical equipment and data acquisition equipment to be utilized. The offeror shall also discuss facility modifications, equipment purchases, and other arrangements required to effectively perform the Statement of Work.

This listing shall also be related to the Statement of Work tasks, and the schedule time frame which such equipment is required. A clear and direct relationship between required equipment and the tasks to be performed should be provided to document which equipment, materials, and facilities will be required to perform specified tasks. Equipment shall be identified as Contractor Owned and Government Property – Contractor Acquired.

D. TECHNICAL EXCEPTIONS AND DEVIATIONS

E. APPENDICES

- 1. STATEMENT OF WORK
- 2. RESUMES3. ADDITIONAL PERTINENT PUBLICATIONS/PAST PERFORMANCE REVIEWS/LETTERS OF ACCOMMODATION (if any)

L.24 PREPARATION INSTRUCTIONS: VOLUME III - COST PROPOSAL

A. Format and Content. Volume III - Cost Proposal shall consist of the offeror's estimated costs to perform the desired work as set forth in the SOW. Since the Cost Proposal shall be 1) evaluated to determine cost realism and the offeror's understanding of the magnitude of effort and 2) used as the basis for any necessary cost negotiation, the Cost Proposal shall be accurate, complete, and well documented. As prescribed by FAR 52.215-20 with Alternate 1, the offeror shall submit cost or pricing data and supporting attachments in accordance with the Cost Proposal Preparation Instructions/Format provided herein (see Section J, Appendix H to the solicitation).

L.25 952.227-84 NOTICE OF RIGHT TO REQUEST PATENT WAIVER (FEB 1998)

Offerors have the right to request a waiver of all or any part of the rights of the United States in inventions conceived or first actually reduced to practice in performance of the contract that may be awarded as a result of this solicitation, in advance of or within 30 days after the effective date of contracting. Even where such advance waiver is not requested or the request is denied, the contractor will have a continuing right under the contract to request a waiver of the rights of the United States in identified inventions, i.e., individual inventions conceived or first actually reduced to practice in performance of the contract. Domestic small businesses and domestic nonprofit organizations normally will receive the patent rights clause at DEAR 952.227-11 which permits the contractor to retain title to such inventions, except under contracts for management or operation of a Government-owned research and development facility or under contracts involving exceptional circumstances or intelligence activities. Therefore, small businesses and nonprofit organizations normally need not request a waiver. See the patent rights clause in the draft contract in this solicitation. See DOE's patent waiver regulations at 10 CFR part 784.

L.26 <u>INFORMATION OF AWARD (NOV 1997)</u>

Written notice to unsuccessful offerors and contract award information will be promptly released in accordance with DOE regulations applicable to negotiated acquisitions.

L.27 <u>DISPOSITION OF SOLICITATION MATERIALS AND PROPOSALS (FEB 1998)</u>

Drawings, specifications, and other documents supplied with the solicitation may be retained by the offeror (unless there is a requirement for a document to be completed and returned as a part of the offer).

Offeror's Proposals will not be returned (except for timely withdrawals).

L.28 <u>52.233-2 SERVICE OF PROTEST. (AUG 1996)</u>

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

Raymond D. Johnson Contracting Officer U.S. Department of Energy National Energy Technology Center P.O. Box 10940 Pittsburgh, PA 15236-0940

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

L.29 <u>952.233-2 SERVICE OF PROTEST. (APR 1995)</u>

(c) Another copy of a protest filed with the General Accounting Office shall be furnished to the following address within the time periods described in paragraph (b) of this clause: U.S. Department of Energy, Assistant General Counsel for Procurement and Financial Assistance (GC-61), 1000 Independence Avenue, S.W., Washington, DC 20585 Fax: (202) 586-4546.

L.30 952.233-4 NOTICE OF PROTEST FILE AVAILABILITY. (SEP 1996)

- (a) If a protest of this procurement is filed with the General Accounting Office (GAO) in accordance with 4 CFR Part 21, any actual or prospective offeror may request the Department of Energy to provide it with reasonable access to the protest file pursuant to FAR 33.104(a)(3)(ii), implementing section 1065 of Public Law 103-355. Such request must be in writing and addressed to the contracting officer for this procurement.
- (b) Any offeror who submits information or documents to the Department for the purpose of competing in this procurement is hereby notified that information or documents it submits may be included in the protest file that will be available to actual or prospective offerors in accordance with the requirements of FAR 33.104(a)(3)(ii). The Department will be required to make such documents available unless they are exempt from disclosure pursuant to the Freedom of Information Act. Therefore, offerors should mark any documents as to which they would assert that an exemption applies. (See 10 CFR part 1004.)

L.31 <u>952.233-5 AGENCY PROTEST REVIEW. (SEP 1996)</u>

Protests to the Agency will be decided either at the level of the Head of the Contracting Activity or at the Headquarters level. The Department of Energy's agency protest procedures, set forth in 933.103, elaborate on these options and on the availability of a suspension of a procurement that is protested to the agency. The Department encourages potential protesters to discuss their concerns with the contracting officer prior to filing a protest.

SECTION M - EVALUATION FACTORS FOR AWARD

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SECTION M - EVALUATION FACTORS FOR AWARD

M.1 GENERAL (**MAR** 1998)

Proposals will be evaluated in accordance with applicable DOE acquisition policies and procedures. Evaluation will be performed to determine the offeror's understanding of work to be performed, technical approach, potential for completing the work as specified in the solicitation, cost reasonableness, the probable cost to the Government, and ranking with competing offerors.

Award will be made to that responsible offeror(s), whose offer(s), conforming to this solicitation, is (are) considered most advantageous to the Government, considering the Evaluation Criteria in this Section M.

M.2 EVALUATION CRITERIA (MAY 1999)

(a) Volume I - Offer and Other Documents

This volume will not be point scored, but rather will be evaluated on a 'pass/fail' basis (1) to ascertain the offeror's responsiveness in complying with the documentation requirements for Volume I - Offer and Other Documents, and (2) to determine the business management performance potential of the offeror, specifically, the offeror's identification of 'management systems and controls' and the manner in which they will be employed to ensure a well-planned, coordinated and controlled project that can be performed within time and budget constraints; some examples of management systems would be purchasing systems, accounting systems, property management systems, human resource management systems (i.e., organization lines of authority, responsibility), project management systems, etc.

- 1. *Contract*. The 'contract' will be reviewed for accuracy and completeness for the information required to be provided by the offeror, e.g.:
 - (i) areas in the 'model contract' which have clearly identified 'to be filled in by the offeror' are complete and the SF33 has been executed by an authorized individual of the submitting organization.
 - (ii) the *offeror's* Statement of Work is incorporated as Attachment A to Part III, Section J;
 - (iii) property requirements (contractor acquired or government furnished), if any, have been identified on Attachments C and D to Part III, Section J;
 - (iv) a "Small/Small Disadvantaged or Women-Owned Business Subcontracting Plan" has been provided as Attachment E to Part III, Section J, unless the offeror is exempt (i.e., small business status);
 - (v) fully executed *Representations*, *Certification and Other Statements of the Offeror* are included for the offeror and each team member/subcontractor;
 - (vi) a summary of 'exceptions and deviations taken or general assumptions made, if any, with respect to the model contract is provided.
- 2. Business and Management Discussion. The offeror's proposal will be evaluated to assess the degree of corporate commitment, the suitability of proposed teaming relationship/interrelationships, and the offeror's access to necessary resources, and utilization of key management systems to minimize performance risk.

(b) Volume II - Technical Proposal

Technical aspects of proposals will be evaluated in accordance with the following criteria which are listed in descending order of importance. Within each criterion, subcriteria are either listed in descending order of importance, or are approximately equal in weight.

EVALUATION CRITERIA

Criterion 1. Technical Understanding and Approach (35%)

Proposals will be evaluated considering the offeror's understanding of the Department of Energy (DOE) Environmental Management need(s)/problem(s) being addressed. Proposal will be evaluated for evidence of understanding the technical issues and history of the DOE need/problem, applicable sites, breadth of proposed technology applications, existing baseline technologies used for problem, and issues/requirements of technology end-users, regulators, and stakeholders. Technical approach will be evaluated for scientific and engineering soundness, and likelihood of success of the proposed research effort in meeting the DOE need(s). Technical approach will be evaluated for novel/innovative nature (not redundant of existing technologies). Technical approach will also be evaluated for providing a clear and logical path for the project. Technical approach will be evaluated for evidence presented that the technology has successfully attained Engineering Stage as supported by the proof-of-principle evidence and other evidence provided, and the merit of this supportive evidence provided. Technical approach will be evaluated for failure scenarios defined for the project path, and contingency plans developed. Technical approach will also be evaluated for the evidence provided that project approach will meet defined, end-user performance requirements and measures. Technical approach will be evaluated for soundness of key milestones and project schedule. Technical approach will be evaluated for evidence that results will be provided within a time frame consistent with implementation and deployment needs, and incorporation of end-users requirements.

Proposals will be evaluated for the technology merit and evidence of merit provided in the proposal. The technology merit will be evaluated for: the potential broad and widespread application of the technology to a prevalent need(s) in the DOE Complex; the anticipated performance improvements and cost savings over existing evidence technologies; for meeting and addressing issues/requirements/acceptance of technology end-users, regulators, stakeholders; and the scientific and engineering basis of the technology. Proposals will be evaluated for incorporating end-user requirements into the project and implementation issues. Proposal will be evaluated for ability to meet end-user requirements, and to obtain end-user acceptance and commitment. Proposals will be evaluated for feasibility of implementing the technology.

Proposals will be evaluated considering the offeror's technical and managerial experience, qualifications and relevant experience (both individual and as a teammember), and availability of personnel who are proposed to work on the project. Proposal will also be evaluated considering project organization and management structure. Proposal will be evaluated for project management controls. Prior experience in management projects (including subcontracts) similar in type, technology, size, and complexity will be evaluated. Evidence provided relative to technical experience and training necessary to complete field tests and full-scale demonstration at the designated field site will be evaluated.

Criterion 4. Facilities and Equipment (10%)

Proposals will be evaluated considering the quality, availability, and appropriateness of the offeror's proposed facilities and equipment. Proposals will be evaluated for links between proposed facilities and equipment needs and project tasks outlined.

(c) Volume III - Cost Proposal

The cost proposal will not be point, assigned a numerical weight, or adjectivally rated. The cost proposal will be evaluated in accordance with the following criteria, which are of equal weight:

- 1. Reasonableness and appropriateness of cost.
- 2. Evaluated probable cost to the Government including any options.

Selection of an offeror for award may involve a determination as to whether an otherwise technically superior proposal is worth any additional cost.

M.3 OVERALL RELATIVE IMPORTANCE OF EVALUATION CRITERIA (NOV 1997)

The technical proposal is of greater importance than the cost proposal. However, if, after evaluation of the technical and cost proposals, two or more competing overall proposals are within the competitive range, evaluated probable cost to the Government may be the deciding factor for selection, depending on whether the most acceptable overall proposal (excluding cost consideration) is determined to be worth the cost differential, if any. The offer and other documents proposal is to be evaluated for adequacy and compliance with the solicitation.

However, in a situation where it is the Government's stated intent to award without discussion, the completeness of the offeror's response to the requirements of Volume - Offer and Other Documents could strongly influence selection or, in an extreme case, make a proposal unacceptable.